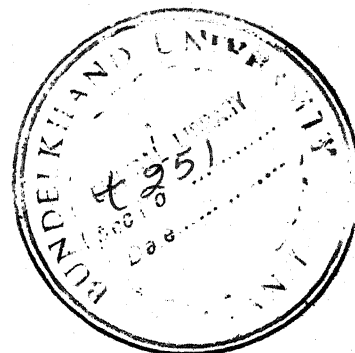
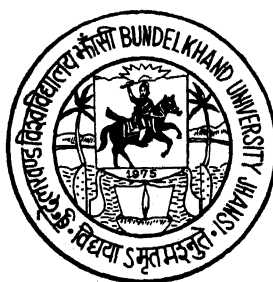


INFORMATION SEEKING BEHAVIOUR OF THE TEACHERS OF BUNDELKHAND UNIVERSITY, JHANSI: AN EVALUATIVE STUDY



Thesis submitted for the award of the Degree of

Doctor of Philosophy

in

Library and Information Science

By

Arvind Singh Parmar

Supervisor

Prof. M.T.M. Khan

Head, Deptt. of Library & Information Science

& Dean, Faculty of Arts

Department of Library & Information Science

Bundelkhand University, Jhansi

2002

CONTENTS

	Page
Certificate	i
Declaration	ii
Preface	iii - iv
Acknowledgement	v - vi
List of Tables	vii - xiii
List of Figures	xiv
Chapter 1 – Introduction	1 – 35
Chapter 2 – Review of related Literature	36 – 61
Chapter 3 – Methodology	62 – 73
Chapter 4 – Analysis and Interpretation	74 – 258
Chapter 5 – Discussion	259 – 268
Chapter 6 – Conclusion and Suggestions	269 – 289
Appendices – Questionnaires	290 – 309
Bibliography	310 – 326

Prof. M.T.M. Khan

M.Lib.Sc., Ph.D. (Lib & Inf. Sc.)

Head, Deptt. of Library & Information Science

&

- Dean, Faculty of Arts



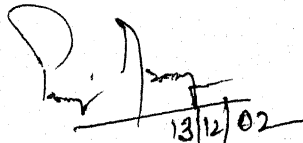
Phone : 0517 - 320245 (R)
Fax : 0517 - 320761 (O)

Resi.: IV/4, University Campus
Jhansi. - 284128 (U.P.) INDIA

CERTIFICATE

This is to certify that the work embodied in the thesis entitled "Information seeking Behaviour of the teachers of Bundelkhand University, Jhansi: An Evaluative study" is submitted by Shri Arvind Singh Parmar for the award of the degree of Doctor of Philosophy in Library & Information Science. It is a record of the bonafide research work carried by him under my supervision and guidance. This work has not been submitted elsewhere for a degree/ diploma in any form.

It is further certified that he has worked with me for the period required under the Ph.D. degree, ordinance-7 of the Bundelkhand University, Jhansi.


13/12/02
(Prof. M.T.M. Khan)

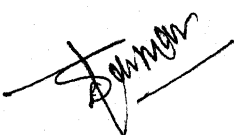
DECLARATION

I declare that the thesis entitled, "Information Seeking Behaviour of the teachers of Bundelkhand University, Jhansi : An Evaluative Study" is the result of my original research conducted under the supervision of Prof. M.T.M. Khan, Head Deptt. of Library & Information Science, Bundelkhand University, Jhansi. The work reflects an advancement in this area.

I further declare that to the best of my knowledge the thesis does not contain any part of my work which has been previously submitted in part or full for any Diploma or Degree to any University.

Date : 12/12/02

Place : Jhansi


(Arvind Singh Parmar)

PREFACE

Information is an elusive commodity and it has no value until it is used. Information is considered as an important resource that contributes towards the development of a nation. It provides the core for the development of knowledge, the basis for innovations, the resources for informed citizens, and as a result, becomes a key commodity for the progress of a society.

Information is inevitable to almost all jobs and professions. The need to become informed and knowledgeable leads the individuals to the process of 'identifying information needs'. However, this process alone cannot work without knowing the ways how individuals articulate, seek, evaluate, select and finally use the required information, which is commonly known as "information seeking behaviour." Various factors such as the environment in which the user operates, user's skills in identifying the needed information, channels and sources preferred for acquiring information and its barriers, may determine the information seeking behaviour of an individual or a group of individuals. So adequate knowledge of the information needs of users is imperative for libraries and librarians in re-orienting their collections, services and activities to synchronise them with the information seeking behaviour of their patrons. ✓

In the present study concentration is on the fact that information is an essential entity, much sought by the teachers' community, especially the teachers of Bundelkhand University.

Chapter 1 - This Chapter is the introductory chapter of the study. After giving general background and explanation of term information, it

introduces information characteristics, needs, theories and information seeking behaviour. It also deals with the selection and statement of problem covering brief description of colleges and University Library of Bundelkhand as given in table 1.

Chapter 2 - This chapter deals with the review of related literature. In this chapter an attempt is made to highlight the studies already completed on the similar aspects.

Chapter 3 - Research methodology has been described in this chapter and details regarding respondents using different characteristics have been given.

Chapter 4 - This chapter is based on the analysis and interpretation of data. The analysed data is presented in tabular form with brief explanation and description. Statistical techniques i.e. Chi square test and t-test were also used.

Chapter 5 - This chapter contains summary of 'observation and discussion'. The present study is discussed in the light of the results of the studies.

Chapter 6 - This chapter contains 'Recommendations and conclusions'. In order to test the formulated hypothesis the findings present the analytical study of the data reported. At last some suggestions have been made to make the library services more effective.

ACKNOWLEDGEMENT

I shall always pray and express my endless gratitude towards Maa Vaishno Devi, for her constant blessings and the most beneficial strength to complete this task.

I feel great pleasure in confessing that this work has achieved its present form with the invaluable help and constructive suggestions of Prof. M.T.M. Khan, Head Dept.. of Library and Information Science & Dean, Faculty of Arts, Bundelkhand University, Jhansi whose benign encouragement, scholarly guidance, sustained interest and the most valuable and precious time devoted out of his busy schedule, helped and enabled me to complete this work.

I sincerely express my deep sense of adoration and thankfulness to Prof. V.K. Sehgel, Deptt. of Mathematical Sciences, Bundelkhand University, Jhansi, Dr. S.P. Pathak former Principal and Dr. V.N. Pandey present Principal of Bundelkhand College, Jhansi for their continuous support and encouragement during the entire process of this work.

I with my deepest sense of sincerity, wish to thankfully acknowledge and appreciate the help and cooperation rendered to me by Dr. Anupam Soni Lecturer Deptt. of English, Bundelkhand College, Jhansi, Miss. Archana Upadhyay, Lecturer Deptt. of Library & Information Science, Chandra Shekhar Azad College of Science and Technology, Jhansi and Miss Purti Goel.

I extend my inner felt obligation and high regards to Dr. Kamlesh Sharma, Dr. Hari Shankar Yadav and Sri Rajpal Arora for their constant moral support, emotional warmth and every kind of help which proved instrumental at every stage of this research work.

I find no words to express my thankfulness and gratitude to my parents, Shri R.G. Singh and Smt. Kala Devi for enshowering their blessings to complete this work as it was their long cherished desire towards my academic achievements which inspired me throughout my academic career to start and complete an academic project of this nature.

I would be failing in my duties if I do not express my heartfelt thanks to my wife Smt. Pratima Parmar, my loving son Karan and daughter Sneha who co-operated me and sacrificed their comforts for providing me an environment conducive for a serious study of this kind, and never grudged against my neglect of duties towards them.

Last but never the least, I am really very grateful to my sister Smt. Neelam Singh and her husband Sri Sunil Singh, Smt. Renuka and her husband Sri Rajendra Chauhan and my sister-in-law Ms. Mamta Singh and brother-in-law Dr. K.N. Singh for their pains and support to complete this work.

(Arvind Singh Parmar)

LIST OF TABLES

Table No.	Contents	Page No.
1.	The name of institute, establishment year total teacher, budget, collection, staff and services etc. of different colleges and University -----	27-32
2.	District wise break-up of Respondents -----	77
3.	College wise respondents in Jhansi District -----	78
4.	College wise respondents in Banda District -----	80
5.	College wise respondents in Jalaun District -----	81
6.	College wise respondents in Hamirpur District -----	82
7.	College wise respondents in Lalitpur District -----	83
8.	College wise respondents in Mahoba District -----	84
9.	College wise respondents in Karvi District -----	84
10.	Faculty wise respondents of Different Districts -----	85
11.	Arts Subject wise respondents of Different Districts -----	86
12.	Science & Commerce Subject wise respondents of Different Districts -----	87
13.	Faculty wise break-up of Respondents in Different colleges of Jhansi District. ----	88
14.	Faculty wise break up of Respondents in different colleges of Banda District -----	89
15.	Faculty wise break up of Respondents in different colleges of Jalaun District -----	90
16.	Faculty wise break up of Respondents in different colleges of Hamirpur District --	91
17.	Faculty wise break up of Respondents in different colleges of Lalitpur District ---	92
18.	Faculty wise break up of Respondents in different colleges of Mahoba District ---	92
19.	Faculty wise break up of Respondents in different colleges of Karvi District -----	93
20.	Status wise break up in different Districts -----	94
21.	Qualification wise break up in different Districts -----	96

22.	Sex wise break up in different Districts. -----	97
23.	Age wise distribution of teachers in different Districts -----	98
24.	Frequency of visits to library by different college & University teachers. -----	99
25.	Summary of Chi Square test viz. Qualifications X Freq. of visit to the library ----	100
26.	Summary of Chi Square test viz. Age X Frequency of visit to the library. -----	100
27.	In case not using the library frequently -----	101
28.	Summary of Chi Square test viz. Qualifications X freq. of non visit to the library.	102
29.	Summary of Chi Square test viz. Age X Frequency of Non Visit to the library. --	103
30.	Time to generally visit the library. -----	104
31.	Summary of the Chi Square test viz. qualifcants X Time generally visit to the library	105
32.	Summary of Chi Square test viz. age X Time generally visit to the library. -----	105
33.	Time spend in the library. -----	106
34.	Summary of Chi Square test viz. Qualifications X Time generally spend on visit to the library -----	107
35.	Summary of Chi Square test viz. Age X Time. -----	108
36.	Purpose of visiting the library. -----	109
37.	Use of sources of Informations -----	112
38.	Summary of Chi Square test viz. faculty X Use of Books -----	113
39.	Summary of Chi Square test viz. faculty X Use of Periodicals -----	114
40.	Summary of Chi Square test viz. faculty X Use of Newspapers -----	115
41.	Summary of Chi Square test viz. faculty X Use of Press Cutting -----	116
42.	Summary of Chi Square test viz. faculty X Use of Doctoral Dissertation -----	117
43.	Summary of Chi Square test viz. faculty X Use of Reference books -----	118
44.	Summary of Chi Square test viz. faculty X Use of Documents -----	119
45.	Summary of Chi Square test viz. faculty X Use of Microfilms -----	120
46.	Summary of Chi Square test viz. faculty X Use of Microfiches -----	121

47.	Summary of Chi Square test viz. faculty X Use of Maps -----	122
48.	Summary of Chi Square test viz. faculty X Use of Statistical table -----	123
49.	Summary of Chi Square test viz. faculty X Use of Proceedings of Conferences/ Seminars -----	124
50.	Summary of Chi Square test viz. faculty X Use of Library Acquisition lists -----	125
51.	Summary of Chi Square test viz. faculty X Use of Surveying Articles -----	126
52.	Summary of Chi Square test viz. faculty X Use of Official Documents -----	127
53.	Use of Information Sources -----	128
54.	Summary of Chi Square test viz. Faculty X Use of Abstracting Journals -----	129
55.	Summary of Chi Square test viz. Faculty X Use of Indexing Journals -----	130
56.	Summary of Chi Square test X Faculty X Use of Books, Monographs etc. -----	131
57.	Summary of Chi Square test X Faculty X Use of Hand books -----	132
58.	Summary of Chi Square test X Faculty X Use of Research Reports -----	133
59.	Summary of Chi Square test X Faculty X Use of Conference Proceedings -----	134
60.	Summary of Chi Square test X Faculty X Use of Advance in Progress in annual review of -----	135
61.	Summary of Chi Square test X Faculty X Use of Patents -----	136
62.	Summary of Chi Square test X Faculty X Use of standards -----	137
63.	Summary of Chi Square test X Faculty X Use of Pre-prints/ Reports received from Authors -----	138
64.	Summary of Chi Square test X Faculty X Use of Use of Reference found while reading literature -----	140
65.	Summary of Chi Square test X Faculty X Use of Attending lectures -----	141
66.	Summary of Chi Square test X Faculty X Use of Attending Conference Seminars etc.	142
67.	Summary of Chi Square test X Faculty X Use of Conversation with experts -----	143

68.	Summary of Chi Square test X Faculty X Use of Reading list Prepared by your Library -----	144
69.	Summary of Chi Square test X Faculty X Use of other information -----	145
70.	Able to keep update you feel.-----	146
71.	Summary of Chi Square test viz. qualifications X able to keep update -----	147
72.	Summary of Chi Square test viz. age X able to keep update -----	147
73.	Use of library services -----	148
74.	Summary of Chi Square test viz. District X Use of circulates Services-----	149
75.	Summary of Chi Square test viz. District X Use of Reference Services -----	150
76.	Summary of Chi Square test viz. District X Use of Indexing Services-----	151
77.	Summary of Chi Square test viz. District X Use of Abstracting Services -----	152
78.	Summary of Chi Square test viz. District X Use of Photo Copy Services -----	153
79.	Summary of Chi Square test viz. District X Use of Current Awareness Services	154
80.	Advice about research Project from Staff of different states -----	155
81.	Usefulness of library Services -----	155
82.	Summary of Chi Square test District X Usefulness of Circulation Services -----	156
83.	Summary of Chi Square test District X Usefulness of Reference Services -----	157
84.	Summary of Chi Square test District X Usefulness of Indexing Services -----	158
85.	Summary of Chi Square test District X Usefulness of Abstracting Services-----	159
86.	Summary of Chi Square test District X Usefulness of Photo Copy Services -----	160
87.	Summary of Chi Square test District X Usefulness of Current Awareness Services..	161
88.	Use of Computerized Services -----	162
89.	Type of Computerized Services -----	163
90.	E-mail Services -----	164
91.	Recommend the library for the required publication and the response of the library.	165

92.	Summary of Chi Square test viz. District X Recommend the library to Acquire ----- publication and response of the library-----	167
93.	Purpose of using periodicals by teachers -----	168
94.	Summary of Chi Square test viz. qualification X Use of Periodical for updating knowledge -----	168
95.	Summary of Chi Square test viz. age X Use of Periodicals for updating knowledge	169
96.	Summary of Chi Square test viz. qualification X Use of Periodicals for research	170
97.	Summary of Chi Square test viz. Age X Use of Periodicals for updating knowledge	171
98.	Summary of Chi Square test viz. qualification X Use of Periodicals for teaching work	172
99.	Summary of Chi Square test viz. qualification X Use of Periodicals for teaching work	172
100.	Summary of Chi Square test viz. qualification X Use of Periodicals for General Awareness -----	173
101.	Summary of Chi Square test viz. qualification X Use of Periodical for General Awareness -----	174
102.	Method of determining Periodicals information -----	175
103.	Summary of Chi Square test viz. Faculty X Browsing -----	176
104.	Summary of Chi Square test viz. Faculty X through Indexing/ Abstracting Periodicals -----	178
105.	Summary of Chi Square test viz. Faculty X Citations Articles -----	179
106.	Summary of Chi Square test viz. Faculty X Consulting Colleagues -----	181
107.	Summary of Chi Square test viz. Faculty X Consulting library staff -----	182
108.	Access to journals -----	184
109.	Summary of Chi Square test viz. Qualification X Accessing to journals through Personal Subscription -----	185
110.	Summary of Chi Square test viz. Age X Accessing to journals through Personal Subscription -----	186

111. Summary of Chi Square test viz. Qualification X Accessing to journals through Membership -----	187
112. Summary of Chi Square test viz. Age X Accessing to journals through Membership -----	187
113. Summary of Chi Square test viz. Qualification X Accessing to journals Colleagues...	187
114. Summary of Chi Square test viz. Age X Accessing to journals Colleagues-----	190
115. Summary of Chi Square test viz. qualification X Accessing to journals from library - your Institute. -----	191
116. Summary of Chi Square test viz. Age X Accessing to journals from library your Institute. -----	192
117. Reservation for New books -----	193
118. Frequency of Attending Conferences, Seminars, Workshops, Lectures etc. -----	193
119. Summary of Chi Square test Qualifications X Frequency of Attending Conferences....	194
120. Summary of Chi Square test Age X Frequency of Attending Conferences Seminars etc -----	195
121. Usefulness of attending Conferences, Seminars, Workshops, Lectures etc. -----	196
122. Difficulties in Obtaining Information -----	199
123. Summary of Chi Square test viz. District X Assessment of Library Collection ---	202
124. Summary of Chi Square test viz. District X Frequency of using library Catalogue.....	204
125. Purpose of using library test viz. District X Frequency of using library Catalogue	206
126. Summary of Chi Square test viz. District X Helpfulness of library staff -----	208
127. Summary of Chi Square test viz. District X library opening hours. -----	211
128. Summary of Chi Square test viz. District X Opening regarding the use of library Collection -----	213
129. Summary of Chi Square test District X Providing Training Programmes. -----	215

130. Comparative Study of Professors, Readers, Sr. Lecturers and Lecturers :	
Visit to the Library -----	216
131. Comparative Study of Profs, Readers, Sr. Lecturers & Lecturers for Visiting the library to get books issued -----	219
132. Comparative Study of Profs, Readers, Sr. Lecturers & Lecturers for Visiting the library to use periodicals -----	221
133. Comparative Study of Profs, Readers, Sr. Lecturers & Lecturers for Visiting the library to use Reference Material -----	223
134. Comparative Study of Profs, Readers, Sr. Lecturers & Lecturers for Visiting the library to use Newspapers and Magazines -----	225
135. Comparative Study of Profs., Readers, Sr. Lecturers & Lecturers for Visiting the library to use Audio Visual Materials -----	227
136. Comparative Study of Profs, Readers, Sr. Lecturers & Lecturers for Visiting the library to Browse Periodical/ Books-----	229
137. Comparative Study of Profs, Readers, Sr. Lecturers & Lecturers for Visiting the library Attending Conferences, Seminars, Lecturers -----	231
138. T-ratio of Professors and Readers regarding various aspects -----	234
139. T-ratio of Sr. Lecturers and Lecturers regarding various aspects -----	238
140. T-test of Readers and Sr. Lecturers regarding various aspects -----	242
141. T-test of Professors and Lecturers regarding various aspects -----	246
142. T-test of Professors and Sr. Lecturers regarding various aspects -----	251
143. T-test of Readers and Lecturers regarding various aspects -----	255

LIST OF FIGURES

Figure No.	Contents	Page No.
3.1	District wise break up of Respondents -----	64
3.2	Subject wise break up of Respondents -----	66
3.3	Designation (status) wise break up of Respondents -----	67
3.4	Academic Qualification wise break up of Respondents ---	68
3.5	Age wise break up of Respondents -----	70
3.6	Sex wise break up of Respondents -----	71
4.7	Assessment of library collection -----	201
4.8	Frequency of using library Catalogue -----	203
4.9	Purpose of using library -----	205
4.10	Helpfulness of librarian & his staff -----	207
4.11	Library opening hours -----	210
4.13	Opinion regarding the use of library collection -----	214

CHAPTER – 1

INTRODUCTION

INTRODUCTION

- (1) **Information :-** Information means the communication of knowledge about an event or given condition or the spread of knowledge derived from observation, study, experience or instruction. Information is one of the several basic resources that are needed and utilized by human beings for their development and prosperity. Gradually, the society is being changed from feudalism to democratic and from democratic to information society. The dependency on information in every sphere of intellectual activity has increased day by day. The supply of correct and precise information in time helps policy makers in making maximum use of the available resources and also helps in avoiding duplication of work.

(1.1) Definitions :-

- (a) According to Fliahu Hoffman – “Information is an aggregate (collection or accumulation) of statements or facts or figures which are conceptually (by way of reasoning, logic, ideas or any other mental “mode of operation” interrelated (connected).”
- (b) The concept of information has been defined as- the data of knowledge which is “communicated received concerning a particular fact or circumstance” - in order to reduce the user’s uncertainty by meeting their needs (Random House Dictionary, 1973).
- (c) According to Faibisoff and Fly– Information is a symbol or set of symbols which has the potential for meaning.”

(1.2) Characteristics of information :-

- (i) It conveys meaning.
- (ii) It reduces uncertainty,
- (iii) It can be communicated,

(iv) depends upon the user's need.

Information has become a vital resource in the present day context.

All this resulted due to the following factors :-

- (i) Increase in population
- (ii) Increase in research and research personnel.
- (iii) Vital source for researchers.
- (iv) Increase in standard of living.
- (v) Key factor in National progress.

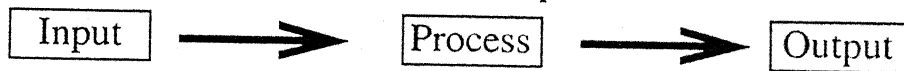
In fact, such a valuable resource will be of no use, unless its collection, processing, storage and retrieval are systematic.

(1.3) Need :- Information plays important role in economic , political and social change. Similarly a research and development programme can be accomplished successfully only if the required information becomes available as and when it is needed. Without proper and complete information no worthwhile decision can be taken infact no progress is possible without the support of information.

A need is generally conceived as describing what an individual ought to have for his work, edification, recreation etc. Information need is an abstract concept used to answer the quarry why people seek, gather, and use information. Information -need has been defined as the state of needing anything that the individual perceives as information. Belkin defined information need as a "Condition or situation that exists when the internal sense runs out."

Information needs depend upon a number of factors and differ depending upon individual's respective functions and tasks, the level of their knowledge and experience, their particular interest as well as on the breadth and depth of their interest profiles. The information needs also depend upon the hierarchical position of the individuals.

The explanation of the identification of information needs can be best expressed as an input-process-output model.



The basic components of the system are (1) Problem, (2) Problem solving process, and (3) Solution. The problem is analyzed to determine information needs. Information needs are complex in nature and difficult to quantify. These can be best measured through information seeking or information use situations.

(1.4) Approaches to Information :- There are six approaches to information. These approaches as identified by Wersing and Neveling are :-

- (i) **Knowledge approach :-** This approach records knowledge that is built on the basis of perception of the structure of the world but the problem with this approach is that the term information erroneously (incorrectly) be used for the term knowledge.
- (ii) **Meaning approach :-** The semantic contents of a message are accepted as information.
- (iii) **Message approach :-** The mathematical theory of communication uses this approach. It is concerned with the transmission of symbols representing a message.
- (iv) **The structural approach :-** In this approach information is viewed as structures of the world or static relation between physical objects which may be perceived or not.
- (v) **The effect approach :-** In this approach the semantic contents of a message are accepted as information.
- (vi) **The process approach :-** According to this approach the process information occurs in the human mind when a problem and useful data are brought together.

(2) **Communication of Information :-** Communication is the process of transmitting the idea generated by the human mind, following an event or fact. It is an essential component, as without proper communication, information cannot reach its defined destination. Information, earlier was passed from generation to generation following the process of 'Smriti and Shruti.' This was the mode of transmitting the information from one person to another. ✓

With the passage of time and inventions of alphabets and printing, the facts known could be transformed into words, preserved and communicated in printed form. ✓

Communication is closely related to information and information is the life-blood of the researchers. Communication has become an essential part of the modern society. Today, everything depends directly on how speedily things are communicated, whether it be the new technologies, economic, political, educational issues, weather forecasts etc, all these effect our day-to-day life. Information communicated at a particular time, also has its value, which if not received in time may be useless or cause some misshap. Moreover, as progress of any kind is linked with the availability of 'right information' at the right time in the right amount and at the right comprehensive level of a given group of users. So, the dissemination of information is also of equal importance. There should be free flow of information and any barriers in its free flow should be removed.

(2.1) **Barriers to use of information :-** The barriers to effective use of information involve the following aspects :-

- (i) There is too much information on a topic and the potential user is overloaded or overwhelmed – the sheer amount decreases the willingness to use information, taking too much time and effort.

- (ii) Information is presented in a language and / or terminology which is outside the user's experience.
- (iii) Information is presented in a context or with examples that are outside the user's cultural framework.
- (iv) Information is presented in form that is hard to follow, the packaging may be an impediment to information absorption.
- (v) Information may not be the trusted – validity and reliability of information is not evaluated and thus information is questioned.
- (vi) Political barrier also affect the flow of information.
- (vii) Lack of manpower, economic barriers and lack of Co-operation also creates barriers in information communication.

The flood of information raises very serious problems in storage, retrieval and service. Transmission of scientific information is a precision job, demanding special care and clear perception is to be dealt with but also what the information is, who is it intended for and to what degree does the process of transmission of information helps in the advancement and use of science. The main factor in making information a valuable contributor to development is in its use.

Minimum conditions for effective use of information include :--

- (i) A level of information infrastructure (indigenous information systems and services) that makes information available and accessible for use. Clearly, resources are needed to create and maintain such an infrastructure.
- (ii) A propensity on the part of potential users to use information. Educational, cultural, economical, political and social factors play role in recognition of the value and need for information and thus in its eventual use.

Today the research potential of each nation and the world at large should be conserved with the least dissipation. A careful conservation of research potential is now a social necessity. For this conservation, the nascent thought- usually micro, thought embodied in learned periodicals and even documents unpublished should be promptly ploughed back into the right minds. This plough back has three phases, prior to a research worker studying in detail any article selected as relevant to his work. The phases are :-

- (i) General browsing.
- (ii) Locating the more or less relevant articles, exhaustively and expeditiously.
- (iii) Knowing the gist of the relevant articles, in order to select the ones needing detailed study.

It necessitates the study of information sources and services term applied to the system of resources, personnel, activities and materials for providing specific users with data, information, counsel or documents.

(2.2) Information products and information services :- Information products comprise three types of documents. Primary, secondary and tertiary.

Primary sources :- Primary information is newly generated information and therefore the documents, which record and disseminate or communicate it are known as primary documents. Primary documents include: journals, newspapers, newsmagazines and conference proceedings annual reports, working and discussion papers, report literature, thesis, dissertation, government publications, standard specifications, patents, manufacturer literature, maps, charts, atlases, engineering drawing etc.

Secondary Sources :- Secondary information is derived from primary information and the documents in which they are recorded are known as secondary documents. Secondary documents are created to facilitate access to information contents of primary documents. Secondary documents include indexing serials, abstracting serials, current awareness serials, review serials, book review serials, news digests, translation journals, reference books, library catalogues, accession lists etc.

Tertiary sources :- Tertiary documents are those that record information about secondary documents. They facilitate access to secondary documents include – Bibliography of bibliographies, literature guides, directories etc.

Provision of information services therefore become an urgent necessity.

(2.3) Information services :- Information services can be categorized into two broad groups.

- (1) **Anticipatory Documentation Service :-** It is a service rendered in anticipation of the demand for it viz. National and International indexing and abstracting periodicals. It is also called active documentation or documentation work. Its purpose is to analyze the literature.
- (2) **Documentation Service on demand :-** It is called passive documentation or documentation service. The purpose of this set of activities is to search and locate information as well as its provision or the provision of the information containing documents.

Current awareness type :-

- (i) **Title announcement service** (usually of current papers, reports and similar documents).

- (ii) Announcement of research in progress (usually in a particular field or for a selected group of institutions).
- (iii) Selective dissemination of information.
- (iv) Notification of forthcoming conferences, meetings, symposiums and the like.

Condensation type :-

- (i) Abstract bulletins.
- (ii) Extracts.
- (iii) Technical digests.

Location type :-

- (i) Indexes
- (ii) Bibliographies
- (iii) Catalogues

Condensation and repackaging :-

- (i) Critical compilations, handbooks etc.
- (ii) Data service.

Reference type :-

- (i) Readers guidance
- (ii) Ready reference
- (iii) Retrospective document search

Evaluation and Emphasis :-

- (i) State - of - the art report
- (ii) Trend report

Back-up services :-

- (i) Reprographic service
- (ii) Translation service
- (iii) Rendering helps in publishing such as preparation of charts, slides, printing etc.

Maintenance services :-

- (i) Training of information workers
- (ii) Preparation and maintenance of systems tools like Classification systems, Thesauras, Union Catalogues etc.
- (iii) Advisory service in documentation and information work.

(2.4) Users of information :- There is no existence and development of information without users, likewise no information can be communicated without the receiver or to a person who is not interested in it. Users can be divided into different categories on the basis of tasks assigned to them. They may be the planners or decision-makers belonging to the top of the hierarchy. The users may belong to the middle range category responsible for the execution of the research project or for the coordination of the activities. The user may also be an administrator, economist, a teacher, a farmer etc. In a university the user may be either teacher or research scholar or graduate and post-graduate students.

(2.5) Users' approaches to information :- Information need is a composite concept of different types of requirements and approaches to information. Melvin Voigt clearly identified three types of information requirements. Later on a fourth type was added by other workers in the field. They are :-

- (i) Current approach
 - (ii) Everyday approach
 - (iii) Exhaustive approach
 - (iv) Catching up or Brushing-up approach
- 1- Current approach :- Every active worker has to keep himself abreast of current developments, upto a fair degree, not only in his specific field of work but also in the broader field or fields of interest or areas,

whose developments can substantially change the course of his present work. Here, the worker interacts with the information system in a very general way-browsing through his favourite periodicals, going through the abstract journals etc. but all these without keeping in view any specific search for information.

- 2- Everyday approach :- This approach stems from the research worker's frequent need, in the course of his investigation for specific piece of information. The nature of information sought is very specific and a quick answer is usually expected.
- 3- Exhaustive approach :- The third approach for which dependence on documents is very much necessary and hence had attracted the attention of documentalists quite easy, is for all or almost all relevant literature on a subject. When a worker or a team of workers want to take up a new area of investigation or have come to the stage of reporting the results of an investigation, such an approach to information is necessary. It can be easily realised that such approach would be occasional only.
- 4- Catching-up approach :- A worker may at times need to have a brief but a complete picture of the recent development of a related subject or a subject in which he was not very much interested or which did not come within the area of his main interest. This is likely to be an area in which he is not an expert. As a result of this he is not quite current with the subject. Hence, in such a situation, he expects to have in the communication system a device which will help him in quickly catching-up with the subject.
- 3- **Information seeking behaviour** :- The term 'information seeking behaviour' is used to include all activities comprising information seeking, information gathering, information receiving and

communication. Information seeking proceeds gathering and information gathering most of the times implies seeking, the user actively undergoes the information seeking process. The attempt of the user in obtaining the needed information results from the recognition of some need, perceived by the user, this is called information seeking behaviour.

3.1 Definition Krikelas (1983) : - Feels the information seeking behaviour is concerned with activities associated with satisfying immediate needs and information gathering behaviours is concerned with activities associated with differed need.

Auster as "the fields composed of studies that are concerned with who needs what kind of information and for what reason, how information is found, evaluated and used, and how these needs can be indentified and satisfied."

The information seeking behaviour is mainly concerned with who needs what kind of information and what reasons, how information is found, evaluated and used, and how these can be indentified and satisfied Wilson (1994) that personal need is the basis of the motivation to seek information. Information seeking begins when someone perceives that the current stock of knowledge possessed is less than that needed to deal with some issue or problem. Information seeking behaviour results from the recognition of some need, perceived by the user. Such efforts may have a purpose, they are activities that have become to be known as "Keeping up with the literature" or "Current awareness."

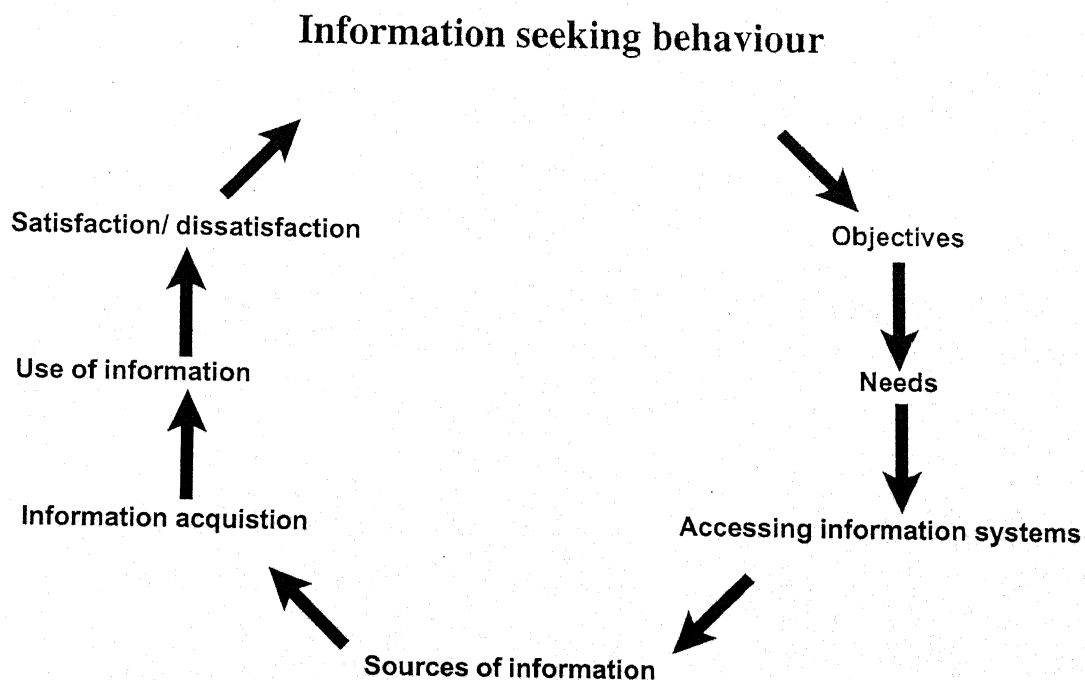
Information seeking behaviour includes aspects like motives and purpose of information seeking, the nature and types of information sought, the mode and means to access, search, identify and acquire

information and use of libraries and information centres by the individuals. The following process takes places in information seeking behaviour :-

- (i) Identifying objective
- (ii) Defining needs
- (iii) Accessing information systems
- (iv) Establishing sources of information
- (v) Information acquisition
- (vi) Satisfaction / dissatisfaction

The information seeking process is of cyclic nature. Various steps in the process are inter-related, acting and reacting upon each other in the sequential order, as well as interacting with the Information seeking Behaviour in general simultaneously.

The dynamic situation is best represented in the chart given below.



The information seeking behaviour essentially refers to the strategies and actions undertaken to locate discrete knowledge elements. It is concerned with the integrative utilization of the following three basic resources :-

- (i) People
- (ii) Information
- (iii) System

It can be said that the behaviour, which yields the highest information satisfaction is the best.

(3.2) History :- The study of information seeking behaviour can be dated back to the late 1940's. Since that time a large number of studies have been carried out on the various aspects of information seeking behaviour of individuals in different fields of specialisation. Behaviour of teachers of university towards seeking information depends, upon the type of problem they undertake for research, availability of time, teaching requirements and availability of sources of information. Now-a-days information seeking behaviour is an area of active interest among the academic librarians and information scientists.

(3.3) Purpose of information seeking :- In any organization/ university the search for information by a person is seldom at end. It is a part of the process of decision making, problem solving, planning, resource allocation etc. Information seeking is basic activity for all scholars. Information sought by a user is often for a particular purpose, which ought not to be neglected in user studies. It may be current or anticipated and use of an item of information or even source in optimum when a perfect match occurs between the need arising out of the purpose and the incident of use. The nature of the work of users and the different roles played are the starting point for understanding the purpose of

information seeking. The purpose of seeking information also varies according to the work assigned to each.

(3.4) Scope :- The meaning and scope of information seeking behaviour in this study is to include the objectives and purposes of seeking information, the nature and type of information required, the ways and means of accessing, searching, identifying and acquiring work related information, the percentage of dependence on sources of information, communication behaviour and use of library.

(3.5) Method of seeking information :- Method of seeking information comprises of formal as well as informal method. Formal methods include consultation of documentary sources e.g. books, periodicals, research reports, thesis, library catalogues etc. Informal method comprises, of discussion with experts. Supervisors, co-researchers, librarians, invisible colleagues, attending conferences etc. Liberally and Jones mentions four methods on which the scholars rely while seeking information references in the publication, communication from colleagues, formal bibliography and librarians. Karisidappa and others reveal that the library catalogues is the most important and frequent majority of Indian historians in locating information.

Finding of information implies the act of finding, recovery, retrospective searching and securing of documents. Methods of finding information include visiting library, searching the shelf, consulting the library catalogue, subject bibliography, library staff, discussion with subject experts etc.

The study of the individual information seeking behaviour will require some sort of representation of psychological state of the user in terms not just knowledge or lack of it but also beliefs, aspirations goals and so on. The taxonomy of information searching competence can be

viewed from behavioural perspective; it is a three folded activity. The searcher first feels information need or motive, then plans to seek and find strategy and finally executes it. Information need provides the motive power for searching behaviour, planning and decision making, by which need can be fulfilled through performing an activity. This activity is goal directed which means that motive or goal continuously governs the selection of steps to be executed. In the process of seeking information what mainly takes place is an effort to match a cognitive need of user with a source of information to satisfy the need.

- 4- **Role of university in teaching and research :-** A library is the heart of the university. It has to play a vital role in teaching and research. The prime aim of the university is to provide facilities for the study, research and conservation of knowledge. Dr. S.R. Ranganathan views that participation in teaching and research is the function of the university library. Faculty members play an important role in conservation and development of knowledge in the university. So the library staff should keep itself in close touch with the progress of work in the classroom in collaboration with the teachers in different subjects. The librarian should provide them with the latest developments to keep themselves abreast of knowledge and mobilise the resources of the library to facilitate this pursuit.

- (4.1) **Need and significance of the study :-** In the present age of information it has been increasingly felt that to serve readers better information needs and users must become the central focus of attention. In any library and information system, the user study plays a vital role in planning, designing and introducing new information services and products and to assess the quality of services and their utilities. It is beyond doubt that the success of the information services is more likely

to be achieved by adjusting the services to meet the specific needs of an individual rather than trying to adopt the individual user to match with the output of the information system.

In recent years, there have been several studies pertaining to information seeking behaviour and this study is intended to understand the information seeking behaviour of the teachers of Bundelkhand university, Jhansi.

User studies have gained importance as an established measure for evaluating library and information systems. The user studies may be either descriptive or prescriptive. A descriptive study describes how information transfer takes place in relation to a particular user population. The prescriptive study will suggest ways in which the prevailing system or product could be modified or upgraded to ensure a greater degree of satisfaction.

Menzel has categorised the user studies broadly in three categories as under :-

- (i) Behaviour studies
- (ii) User studies
- (iii) Information flow studies

Studies, which are carried out to find the pattern of overall interaction of the user community with the communication systems without reference to any special information receiving event, are called information behaviour studies. Studies, which are conducted to find the use of any communication medium such as primary periodicals and other sources, are called user studies. While the studies, which are conducted, to find the pattern of flow of information in communication system is the information flow studies.

The faculty members and Research scholars of a university are users of the university library. Therefore their attitude and behaviour reflects the extent to which the efforts of the libraries were successful in developing the services of the said library to meet their information requirements.

(4.2) Selection of the problem :- The problem for the present study is entitled "Information seeking behaviour of the teachers of Bundelkhand university, Jhansi.

Definition :-

Information "is an assemblage of data in a comprehensible form capable of communication use, to which a meaning has been attached."

Seeking : According to O.E.D. this word means "to go in search or quest or try to find, look for either a particular object or place or an indefinite object suitable for a particular purpose."

Behaviour : "As a psychological term the word behaviour denotes to the actions and reactions of an organism towards its environment.

According to O.E.D. the word behaviour means, "The manner in which a thing acts under specified conditions or circumstances or in relation to other things."

Information seeking Behaviour :- "The complex patterns of action and interaction which people engage in when seeking information of whatever kind and for whatever purpose."

"The expression is used in wide ranging way to refer to any context where information is sought and it encompasses all forms of information seeking."

5- Bundelkhand region :- Bundelkhand Region is stretched between $23^{\circ}35'$ – 26° N and 78° – 82° E bounded by the Yamuna in the North, the Chambal in the North West, the erupted ranges of the Vindhya Plateau in the South and the Panna and Ajaygarh ranges in the South East. Vindhyachal ranges, form a major portion of the mountain ranges of this part of the country and has been protector and Caretaker of the Bundelkhand region. The river network of the region comprises of various big and small rivers like, Yamuna, Chambal, Betwa, Dhasan, Son, Sindh and Kane.

Administratively, Bundelkhand Region Comprises of Jhansi, Lalitpur, Jalaun, Hamirpur, Banda and Mahoba in Uttar Pradesh and Sagar, Chattarpur, Tikamgarh, Panna and Damoh in Madhya Pradesh including parts of Gwalior, Datia, Shivpuri and Chanderi.

Bundelkhand University is located in the historic city of Jhansi, the Karmabhumi of the Lion Queen– Maharani Laxmibai –the Rani of Jhansi and heartland of India, under the Vindhyachal foothills.

(5.1) Bundelkhand University :- On August 26th, 1975– Bundelkhand University (BU) (Under Uttar Pradesh University act No. 10–1986 section 4, subsection A vide U.P. government notification no. 10/15–60–33/74) Opened its doors to award graduate, post-graduate and doctoral degrees to the students who were exploring their creative intellect and learning aptitude. The event marked the culmination of the efforts of the U.P. Government under the able leadership of its dynamic Chief Minister – H.N. Bahuguna, to create a new kind of university, relevant to the times and nation's need, where students would be educated in the application as well as the acquisition of knowledge.

Before the inception of Bundelkhand University, the colleges of the five districts of Bundelkhand region were affiliated either to Kanpur University or to Agra University. Initially the university covered five districts of Jhansi, Banda, Hamirpur, Jalaun and Lalitpur. Later on one part of Hamirpur district was separated as Mahoba and one part of Banda district was separated as Chitrakoot and hence now the university covers seven districts. The University was created as affiliating university. It was only in 1986 that residential status was given to the university and four Departments, namely Department of Business Administration, Department of Rural Economics and cooperation, Department of Mathematics and statistics and Department of library and information science. Today Bundelkhand University Comprises of 11 faculties, 34 institutes of higher learning, 158 departments and 38 colleges that cater to the needs of more than 75,000 students in the various fields of their study leading to graduate, post graduate and Ph.D./ D.Sc./ D.Litt/ LL. B Degree. These cater to students' interested in pursuing their academic careers in Arts, Science, Commerce, Agriculture, Education, Law, Medical Science, Engineering etc.

There are 11 faculties under the aegis of Bundelkhand University, these are Arts, Science, Agriculture, Commerce, Engineering and technology, Education, Law, Medicine, Regional and Environmental studies and Architecture.

As we all know Bundelkhand region is a very vast area spread over U.P. and M.P. and the university's jurisdiction is spread over 8 districts under two commissioners. Therefore, the present infrastructure is not sufficient to provide opportunities of higher education to all. Hence, the university has established a campus of

open learning where education is being imparted through distant education mode for 22 courses.

Bundelkhand University, an institution of national importance, is known for the quality of its teaching and research and attracts large number of students and faculty from all over the country and beyond. A beautiful and sprawling campus with over 186 acres of land on the foothills of Kamason Hillocks and equipped with a modern computer center, ~~labs~~ and library and highly educated and skilled faculty who are ready to satisfy the burning desire of students who wish to exalt in education and research and want to be leaders in their pursuits. In order to achieve academic excellence, Bundelkhand University has established its linkages with several foreign universities, like Denver University, USA; Soka University, Japan and others.

On the whole, the university is now offering 132 regular UG/PG level ~~academmes~~ programs. A unique feature of every academic program offered by each institute is state-of-the-art knowledge in the respective curriculum, effectively complimented with the right blend of theoretical knowledge-analytical/practical skills, industrial/on-the-job training, communication, management, Computer Education and entrepreneurship motivation and training.

(5.2) Mission of University :- To impart quality vocational and scientific education through basic and applied research, to improve the quality and value of humans irrespective of gender, caste, nationality and religion.

(5.3) Objectives of the university :- Its goal is to be truly innovative, interdisciplinary and international. Thus, this seat of higher learning is not just devoted to impart and spread quality knowledge but also

strives to ensure quality life to one and all. On academic front the core objectives of the university are :-

- To have greater appreciation for professionalism, values and integrity.
- To work extensively for the creation of new knowledge.
- To inculcate strong understanding of the complex interdisciplinary subjects.
- To create realization that the application of science can solve the world's problems.
- To infuse extensive development of written and communicative skills.
- To provide solid foundation of scientific principles, skills and practical training.
- To develop teaching, administrative and R & D skills.

Bundelkhand University is now recognized under section 12-B by the University Grants Commission and approval to many technical courses from AICTE, Pharmacy Council of India and other Agencies have been received.

(5.4) Role of university and its teachers :- Higher education and research are the most effective weapons to counter problems ranging from poverty, hunger, superstitions, relentless wastage of resources, social disparities, health hazards, disastrous diseases and environmental degradation to economic backwardness and that the universities can and should play decisive role in this regard.

A university teacher has four main roles to perform; first, as an innovative and creative lecturer, filled with wide outlook, full of examples, creative to respond to the immediate need and visionary in nature. Second, to create new knowledge by doing research and developmental activities inside and outside the laboratory. Research is not limited to carry out some scientific experiments, it involves

mental exercise to create new thought for action. Third, the very important one, to be the guide; to help a student in his overall development; to make him enterprising , innovative and creative; to show him the path of success; to help him so that he is able to set a realistic achievable goal for himself, and in setting next higher goal; Fourth is to be a producer, a quality producer, a good manager, and not only an innovative manager of men, machines and resources but also creator of material resources for self and society as a whole.

Of course, one of the key areas of university's success is the fact that its faculty, as well as the technical and administrative staff work with utmost devotion and team spirit. Number of teaching faculty in the campus is 600. ✓

(5.5) Academic Excellence :- Words are one of our. Chief means of innovation, creation, acquisition and application of knowledge to all the situations in life. The creation of these institutes of higher learning which will comprise of departments, to import post graduate, M.Phil/ M. Tech, Ph.D and Post - Ph.D level training and research, is aimed to have better control and a more successful approach. The pattern has been adopted by the university to meet the Global requirements of multi disciplinary approach, in teaching and research. It is hoped that this will help in forgoing alliance with Foreign universities and schools of higher learning, and shall benefit students and faculty of Bundelkhand University both academically as well as in the new career opportunities.

(5.5(i)) Institutes of Higher Learning :- To promote interdisciplinary, Interactive teaching, research and international collaboration , the Executive Council of Bundelkhand University has established 34 institutes of studies, as under :

- ☐ Institute of Basic sciences
- ☐ Institute of Applied sciences
- ☐ J.C. Boss Institute of Life sciences
- ☐ Institute of Biomedical sciences
- ☐ Pt. Ramnarain Sharma Institute of Ayurveda and Alternate Medical Research and education
- ☐ Institute of Environmental sciences
- ☐ Institute of Pharmacy
- ☐ Institute of Food Technology
- ☐ Institute of Applied Engineering and Technology
- ☐ Institute of Information technology
- ☐ Institute of Computer and system sciences
- ☐ Institute of Agricultural sciences
- ☐ Institute of Home science
- ☐ Institute of Library and Information sciences
- ☐ Institute of Banking, Economics and Finance
- ☐ Institute of Management
- ☐ Institute of Law
- ☐ Institute of Tourism and Hotel Management
- ☐ Institute of Music and Fine Arts
- ☐ Institute of Mass communication and journalism
- ☐ Major Dhyani Chand Institute of Physical Education
- ☐ Dr. B.R. Ambedkar Institute of social sciences
- ☐ Institute of International studies
- ☐ Institute of Vocational studies
- ☐ Institute of Distance Education (Camps for Open Learning)
- ☐ Institute of Language

- ☐ Institute of Buddhist studies
- ☐ Institute of Veterinary science
- ☐ Institute of Dental science
- ☐ Institute of Nursing
- ☐ Institute of Rehabilitation
- ☐ Institute of Education
- ☐ Institute of Pure and Applied Radiation Biology
- ☐ Institute of Criminology and Forensic science

(5.5-2) Colleges of Bundelkhand University

1. Attara P.G. College Attara (Banda)
2. Arya Kanya Degree College, Jhansi
3. Bipin Bihari College, Jhansi
4. BNV Degree College, Rath (Hamirpur)
5. Bundelkhand College, Jhansi
6. Bundelkhand Institute of Engg. & Technology, Jhansi
7. C.S. Azad Institute of Science of Technology, Jhansi
8. Dr. Hadgawar Govt. Degree College, Charkhari (Mahoba)
9. Dr. R. Prasad Richariya Degree College, Baruasagar (Jhansi)
10. D.Y. Degree College, Orai (Jalaun)
11. Fundi Singh Lona Govt. Degree College, Jalaun
12. Gandhi Degree College, Orai
13. Goswami Tulsi Das Degree College, Karvi
14. Govt. Girls Degree College, Banda
15. Govt. Girls Degree College, Hamirpur
16. Shri Raghuveer Singh Govt. Degree College, Lalitpur
17. Govt. Degree College, Mahoba

18. Govt. Degree College, Samthar
19. Govt. Degree College, Talbhet (Lalitpur)
20. Govt. Degree College, Hamirpur
21. Govt. Girls Degree College, Jhansi
22. Kalpi Degree College, Kalpi (Jalaun)
23. MLB Medical College (Constituent), Jhansi
24. Mahatma Prannath Degree College, Mau (Karvi)
25. Mathura Prasad Patel Degree College, Konch (Jalaun)
26. Nehru Degree College, Lalitpur
27. Pt. Deen Dayal Upadhyay Govt. Degree College, Mehroni (Lalitpur)
28. Pt. JLN Degree College, Banda
29. Sanatan Girls Degree College, Orai (Jaloun)
30. Shri Agrasen Degree College, Mauranipur (Jhansi)
31. Shri Guru Harkishan Degree College, Jhansi
32. Smt. Ganeshi Bai Soni Science Degree College, Mauranipur Jhansi.
33. Rajeev Gandhi DAV Degree College, Banda
34. Shri Ram Swaroop Yadav Degree College, Poonch, (Jhansi)
35. Veer Bhumi Govt. Degree College, Mahoba
36. Zila Parishad Agriculture College, Banda
37. Shri Sukhdev Singh LoveKush Degree College, Baberu (Banda)
38. Smt. Amrat Kaur College, Atrakalan, (Jalaun)
39. Naga Swami Girls Degree College, Barua Sumerpur, Hamirpur.

The explosion of knowledge in enormous volumes and degree, in the recent past has provided the most exciting period in educational research and technology. An alanche of data related with the knowledge in various human endeavours have been accumulated to the extent that

it challenges our ability to absorb and exploit this explosion of information. We can be absolutely sure that there will be surprises as the life span of knowledge has been drastically reduced. Today's students encounter the paradox that despite an unprecedented quantity of information, the keys to progress will remain critical judgement, imagination and daring. The Bundelkhand University aims to provide an environment in which young minds can rise to these challenges.

In addition of these institutes of higher learning and UG/PG College (Scattered in 7 districts), Bundelkhand University has two constituent Colleges viz. one medical college and an Engineering College in Jhansi (Bundelkhand Institute of Engineering and Technology).

The university as an institution of higher learning has brought a change in the socio-economic set up of Bundelkhand with committed band of academicians and innovative educational programmes Bundelkhand University is definitely contributing for upliftment of people in Uttar Pradesh in particular and the country in general.

DIFFERENT COLLEGE UNIVERSITY LIBRARIES IN DIFFERENT DISTRICTS

JHANSI

TABLE - 1

1. Name of the Institute	BKD College Jhansi	BBC Jhansi	Arya Kanya Degree College Jhansi	Sri Guru Hari Kishan Degree College Jhansi	Govt Girls Degree College Jhansi	Dr. R.P. Richariya Degree College Baruasagar	Sri Agrasen Degree College Mauranipur	Govt Degree College Samthar	Swargiya R.S. Degree College Poonch	Smt. Ganshi Bai Soni Sc. Degree College Mauranipur	MLB Medical College Jhansi	B.I.E.T. Jhansi	C.S.A. Institute of Sc. & Tech. Jhansi	B.U. Campus Jhansi
2. Year of establishment of library if any	1949	1959	1962	1993	1996	1993	1972	1996	1999	2000	1969	1989	2000	1986
3. Total Teachers	52	46	13	05	06	10	11	02	16	05	54	15	2	64
4. Budget														
Institute	454352	164259	121790	20 Lakh	2 Lakh	4 Lakh	8 Lakh	2 Lakh	7 Lakh	7 Lakh	Nil	65 Lakh	35 Lakh	
Library	337547	132102	32000	1.7 Lakh	10807	35000	6189	16000	25000	14000		3 Lakh	60000	54 Lakh
5. Collections														
Books	100031	43450	19000	2500	3000	4000	15313	975	1100	1800	10333	17500	600	150000
Journals	5100	155	-	-	-	-	-	-	-	-	5600	4000	3	-
Current Journals	100	15	-	3	-	-	5	-	-	-	170	40	-	-
Diss. / Thesis	-	-	-	-	-	-	-	-	-	-	50	-	-	-
Any other	-	-	-	-	-	-	-	-	-	-	-	-	-	-
6. Library staff														
Professionals	2	2	2	1	-	1	1	-	1	-	1	3	2	3
Semi-Prof.	7	2	1	-	1	1	-	1	-	-	-	2	-	5
Non-Prof.	2	1	-	1	1	1	2	1	2	1	6	1	2	11
Services provided by the library	Circulation Ref.	Circulation Ref.	Circulation Indexing	Circulation Photo-copy	Circulation Ref.	Circulation Ref.	Circulation Ref.	Circulation Ref.	Circulation Ref.	Circulation	Circulation Ref.	Circulation Ref.	Circulation Ref.	Circulation Ref.
	CAS	Indexing									Photo-copy	Photo-copy	Photo-copy	Photo-copy
	Photo-copy	Abstracting									Abstracting	Computerized	Abstracting	Abstracting
		Photo-copy									Indexing	Indexing	Indexing	Indexing
		CAS									CAS	CAS	CAS	CAS

BANDA

1.	Name of the Institute	Pt. J.L.N. College Banda	Govt Girls Degree College Banda	Zila Parishad Agriculture Degree College, Banda	Atarra PG College Atarra	Swargiya Rajiv Gandhi DAV Commerce College Banda	Sri Sukhdev Singh Love-Kush Degree College, Banda
2.	Year of establishment of library if any	1964	1981	1994 (Kishan Library)	1960	2001	2001
3.	Total Teachers	54	12	14	58	03	07
4.	Budget						
	Institute	21 Lakh	60000	18 Lakh	1644809	6 Lakh	12 Lakh
	Library	42500	60000	1.5 Lakh	75170	10000	8000
5.	Collections						
	Books	45573	1500	5000	42631	200	500
	Journals	07 Bound	200	05 Bound	-	02	-
	Current Journals	40	50	03 Bound	-	04	-
	Dissertation/Thesis	-	-	-	-	-	-
	Any other	09	-	-	-	-	-
6.	Library staff						
	Professionals	2	-	1	1	-	-
	Semi-Prof.	1	-	-	1	1	-
	Non-Prof.	7	2	5	3	-	1
7.	Services provided by the library	Circulation Reference	Circulation	Circulation Reference	Circulation Reference Photocopy CAS	Circulation	Circulation Reference Industry Photocopy

JALAUN

1.	Name of the Institute	DV College Orai	Gandhi Degree College Orai	Snatan Girls Degree College Orai	Fundi Singh Lona Govt Degree College, Jalaun	Mathura Prasad Degree College Konch	Kalpi Degree College Kalpi	mt. Amrit Kunwai Degree College Atra Kalan
2.	Year of establishment of library if any	1951	1966	1993	1981	1973	1971	2001
3.	Total Teachers	35	25	09	12	8	12	4
4.	Budget							
	Institute	14 Lakh	134706	278000	589180	118228	7 Lakhs	2 Lakhs
	Library	140400	30615	8288	2.5 Lakh	1 Lakh	7000	10500
5.	Collections							
	Books	50000	24463	6000	7896	3164	10000	2000
	Journals	25 (Bound)	07 (Bound)	-	-	-	12	-
	Current Journals	12 (Bound)	-	-	-	-	8	-
	Dissertation/Thesis	-	-	-	-	-	-	-
	Any other	42 (Manuscript)	-	-	-	-	-	-
6.	Library staff							
	Professionals	1	1	1	-	1	1	-
	Semi-Prof.	5	1	-	1	1	1	1
	Non-Prof.	6	1	2	2	1	1	-
7.	Services provided by the library	Circulation Reference Photocopy CAS Computerised	Circulation Reference Photocopy CAS	Circulation Reference	Circulation Reference Photocopy	Circulation Reference	Circulation Reference CAS	Circulation Reference

HAMIRPUR

1.	Name of the Institute	Govt Degree College Hamirpur	Govt Girls Degree College Hamirpur	B.N.V. Degree College Rath	Govt Degree College Maudha	Naga Swami Girls Degree College Barua Sumerpur
2.	Year of establishment of library if any	1975	1993	1960	1997	2001
3.	Total Teachers	22	5	35	04	07
4.	Budget					
	Institute	3.5 Lakh	2831400	909068	1099450	291000
	Library	50000	62000	93293	12000	8500
5.	Collections					
	Books	26000	1604	15000	827	19000
	Journals	1890	-	1500	-	-
	Current Journals	10	-	100	-	-
	Dissertation/Thesis	-	-	-	-	-
	Any other	-	-	-	-	-
6.	Library staff					
	Professionals	1	-	1	-	-
	Semi-Prof.	1	1	2	1	1
	Non-Prof.	2	1	1	1	-
7.	Services provided by the library	Circulation Reference Photocopy CAS and Indexing Abstracting	Circulation Reference	Circulation Reference Photocopy	Circulation Reference	Circulation

Contd.....

LALITPUR

1.	Name of the Institute	Nehru Degree College Lalitpur	Raghuveer Singh Govt. Degree College Lalitpur	Pt. Deen Dayal Upadhaya Govt. Degree College, Mehrouni	Govt Degree College Talbehah
2.	Year of establishment of library if any	1968	1981	1996	2000
3.	Total Teachers	20	12	3	2
4.	Budget				
	Institute	18 Lakh	163720	28462	50000
	Library	70000	62000	4000	7000
5.	Collections				
	Books	19000	12081	1447	900
	Journals	-	-	-	-
	Current Journals	-	-	-	-
	Dissertation/Thesis	-	-	-	-
	Any other	-	-	-	-
6.	Library staff				
	Professionals	1	1	1	-
	Semi-Prof.	1	-	-	-
	Non-Prof.	2	1	1	1
7.	Services provided by the library	Circulation Reference Photocopy CAS Indexing	Circulation Reference Indexing	Circulation Reference	Circulation

1.	Name of the Institute	MAHOBA			KARVI	
		Veer Bhoomi Govt Degree College Mahoba	Dr. Hadgavoor Govt. Degree College Charkhari	Goswami Tulsi Das Govt. Degree College Karvi	Maha mati Pran Nath Degree College, Mau Karvi	
2.	Year of establishment of library if any	1984	1978	1988	1982	
3.	Total Teachers	12	7	3	6	
4.	Budget					
	Institute Library	4 Lakhs 35000	2 Lakhs 17000	3 Lakhs 11500	37168 4416	
5.	Collections					
	Books	10000	9500	6000	3200	
	Journals	-	-	-	-	
	Current Journals	-	-	-	-	
	Dissertation/Thesis	-	-	-	-	
	Any other	-	-	-	-	
6.	Library staff					
	Professionals	-	-	1	-	
	Semi-Prof.	1	1	-	1	
	Non-Prof.	1	1	-	-	
7.	Services provided by the library	Circulation Reference Photocopy CAS	Circulation Reference	Circulation Reference	Circulation Reference	

Reference : Annual reports of affiliated colleges of Bundelkhand University, 2001-2002.

NOTE : Full set of W.H.O. Deposit Library available in Medical College Library – 15000

Libraries and its Objectives

Library is the heart of the college and university. It has to play a vital role in teaching and research. The prime aim of the college or university is to provide facilities for the study, research and conservation of knowledge. Ace to Dr. S.R. Ranganathan "To Participate in teaching and research is the function of the any college or University Library." Different college and university teachers play an important role in conservation and development of knowledge in the college or University. So the library staff should keep it self in close touch with the progress of work in the classroom in Collaboration with the teachers in different subjects.

Objectives

1. To expose the information needs of different colleges and university teachers.
2. To identify the purposes of seeking information, nature and type of information required.
3. To study the methodologies adopted by them for locating the information.
4. To identify the information sources and type of Publication used i.e. Indexing, abstracting and bibliography sources.
5. To rank Primary and secondary sources of information used by them.
6. To know the time devoted in information gathering.
7. To find out how often they require an exhaustive information search in new areas.

8. To evaluate various existing since in respect of their utility to users.
9. To find out the problems faced in the use of information.
10. To determine the use of Library and librarian for information needs to be satisfied.
11. To evaluate the usefulness of collection of their respective libraries.

Hypothesis :- Following hypothesis were formulated for this work.

1. Teachers from different colleges and University of Bundelkhand region have a training in research methodology and known how to collect Material.
2. Teachers of different colleges of Bundelkhand University devote a lot of time in searching information.
3. Teachers seek current information to real them solves up to date of specific field.)
4. Most of the teachers of the colleges in different fields use their college library or university library only.
5. They feel satisfied by the resources available and the services rendered by their respective libraries.
6. They are effectively and Judiciously utlising the library service.
7. Books are the most used documents by teachers, followed by reference and Periodicals.
8. Most of college teachers use indexing and abstracting services and sources.
9. Computerised services are provided by the college libraries and University libraries in a small scale.
10. Audio - Visual service are provided by some college libraries and university libraries only.
11. Photocopying and current generanal awareness services are provided by the college libraries and university libraries.

CHAPTER – 2

REVIEW OF RELATED LITERATURE

The research findings of Sridhar (1989) revealed that library catalogues, colleagues and fellow professionals direct browsing of

REVIEW OF RELATED LITERATURE

(Review of related literature is very essential in a new research topic. The survey of related literature is a crucial aspect of planning of study and time spent on such a survey invariably is a wise investment as it provides a base for further research on the already existing knowledge in the field. Study of related literature implies locating, reaching and evaluating report of research as well as report of casual observation and opinion that are related to the individuals planned research project: >

In any worthwhile study in a field of research, the research must have an adequate knowledge with the work that has already been done in this area of his research. >

In the present study, although it was not possible on the part of the investigator to get access to the entire published or unpublished resources due to lack of time, still an attempt has been made to study the literature concerned with the investigation in hand so as to provide philosophical background to the study. In brief this chapter present an overall review of studies conducted in abroad as well as in India regarding the topic information seeking behaviour. The investigator reviewed only those studies, which are similar to the present study. (The hypothesis of the present study have been formulated on the backdrop of these studies.)

(The research findings of Sridhar (1989)¹ revealed that library catalogues, colleagues and fellow professionals, direct browsing of

library shelves, expert in the field, citations in current reading material, are the major sources of bibliographic information to the Indian Space Technologists of ISRO Satellite Centre (ISAE), Bangalore. Only 6% of the space technologists have frequently delegated information gathering work to their juniors, whereas 40% delegated it moderately or occasionally. On an average 9.2 hours per week or one fourth of their working time they spent for gathering work related information. They spend slightly more on formal and documentary sources of information. The study concluded that the information seeking behaviour of the Indian Space Technologists varies significantly with status, qualifications, nature of work, specialization and professional activities and achievements.

Krishan Kumar (1990)² conducted a study of information seeking behaviour of sociologists of university of Delhi and Jawaharlal Nehru University, Delhi. The results indicated that discussion with colleagues within organization, consultation of supervisor and knowledgeable persons (peers) in the field seem to be on high priority. It was found sociologists used books heavily as compared with articles in journals.

Ramesh and Karisiddappa (1991)³ conducted a study to investigate the information needs of engineering scientists of Regional Research Laboratory, Bhubaneswar. They concluded that there has been 100% agreement among scientists to have current research information in their field of research, use online databases for literature research, scan current periodicals for

updating their knowledge, and increases manpower for the library and documentation section.

Korah and Deverajan (1991)⁴ concluded that current periodicals are the most important sources of information for scientists followed by back volumes of periodicals and books respectively. The results also highlighted that 72.13% users expressed that they obtain information by scanning the issues of various periodicals directly. The use of reprographic service is availed by 30.06% scientists.

B Guha (1992)⁵ as a principal investigator of the study team of Institute of Social Analysis and Communication studied 148 respondents from six research-cum-teaching institutions in Delhi and found that there was a marked preference for journal articles. On the average 38.5% respondents showed their preference to journal articles 27.2% to books, 11.4% to conference papers, 8.8% to technical reports, 7.2% to thesis, and 2.5% to trade literature.

Dee and Blazek (1993)⁶ found that all physicians consider that discussions with the colleagues is easily accessible source and it also provides immediate, accurate and reliable solution. Thus it saves time and efforts required to consult books and journals. A majority of physicians (83.3%) attended local meetings. The aim to attend these meetings was to exchange ideas with their colleagues, to take educational courses and to keep themselves abreast of the current practices.

B Guha (1994)⁷ made a study under the title "Information seeking and communication behaviour of Indian scientists". In the study sample of 148 respondents was chosen from six research and research cut teaching Institutions in Delhi. These institutions were IIT, National Physical Laboratory, National Institute of Health Family Welfare, Jamia Milia Islamia, JNU and Publications and Information Directorate of CSIR.

It was observed that 28% respondents visit libraries to select and borrow books, more than 26% to browse through new books, nearly 12% to consult abstracting and indexing periodicals and over 12% to consult reference books.

- (1) 46% of the respondents visited to library at least once a week and more than 21% almost every day, 17% twice a month and 9% occasionally. Nearly 6% did not visit but got materials issued from the library.
- (2) In regard to relative importance of types of documents 38.5% to journal articles, 27.2% to books, 11.4% to conference papers, 8.8% to technical reports, 7.2% to thesis and 2.5% to trade literature.
- (3) When face to face with the language barrier, 57 respondents prepared to take the step "get a translation done", 53 would opt for "try to find out if a translation is available", 46 said they would just read an English abstract, 12 would take other steps.

- (4) There were only 21 responses in the affirmative from the entire sample.
- (5) Most of them spent more time in reading, similarly they spent less time in scanning recent issues of periodicals than either in discussions with colleagues or in writing, preparing abstracts etc. or in delivering lectures.

Ken. M.C. Nweke (1995)⁸ made a study under the title "Information methods of human and veterinary medical scientists (HVMS) in Borno State, Nigeria". A combination of questionnaire and interview methods was used to obtain information from all HVMS working in the state. The questionnaire contained a list of 17 methods of obtaining information. The questionnaire was administered and in person interviews were conducted by research assistants to validate answer supplied in the questionnaires. A total of 123 human and 65 veterinary medical scientists took part in the statewide investigation. Personal records of data were one of the most highly ranked sources of information. Respondents reported that these include photocopies of relevant sections of printed information sources, computer printouts, correspondence with experts in Nigeria and abroad, personal notes from discussion with colleagues, and records of experience from professional practice. There is a need to re-examine the currently available information services to HVMS in Borno state with a view toward developing more relevant services that will meet their information needs, especially in the light of the present reality of dwindling library budgets. Medical librarians in Borno state should adopt measures

that would improve access to the categories that constitute personal records of data that HVMS prefer using a source of information. Training sessions should be organized to expose HVMS to various filing systems already in existence for organizing personal files.

Lalitha, M. (1995)⁹ made a study under the title "Information seeking behaviour of medical and engineering personnel. A comparative study with reference to their library use". The study was aimed to identify, in quantitative terms, the various categories of medical and engineering personnel, and to ascertain their information requirements and the types of materials needed by them. To find out the response of the users towards the existing systems, to find out the reading pattern to make a comparative study between the two, to find out the sources and services in the respective fields to satisfy the information needs of the two categories. The methodology used in the study includes literature search survey using questionnaire, supplemented with interview. Randomly 170 questionnaire were distributed.

The findings of study were:-

- (1) The Engineering Community showed a lower percentage or response, especially the students, practitioners and teachers were better, on the whole, and the medical community showed more interest.
- (2) There is not much difference between the practitioners in both the fields with regard to their research activities.

- (3) Except for minor difference the type of information sought is the same for the medical and engineering communities.
- (4) Both use their own libraries very frequently. Majority of the doctors and engineers frequently use libraries other than their own once a fortnight.

Dennis N Ocholla (1996)¹⁰ conducted a study under the title "Information seeking behaviour by academics : a preliminary study". The objectives of the study were:-

- (1) To investigate academics information seeking behaviour within the university of Moi, South Africa under the resource limitation.
- (2) CAS was rated lowest in all cases, the investigator suggested that staff and department need encouragement to develop local and international joint research and teaching partnerships, marketing and publicity of information products and services as well as provision of CAS should be given attention by university library.

Ellis and Havgan (1997)¹¹ studied the information seeking behaviour of 23 engineers and scientists through interview. The study concluded that information seeking is most extensive in the initial stage of a project, when both formal and informal channels are utilized, but indeed on a smaller scale. Secondary sources were more often ranked over primary sources.

Hart (1997)¹² reported that there is highly active information gathering among science, social science and Humanities faculty of state university of New York College at Fredonia, New York. Formal sources of information are more important than informal sources, and use of books and journals varies across disciplinary areas.

Janie L Hassard Wilkins and Gloria J Leekie (1997)¹³ made a study under the title "University professional and managerial staff members employees at a Canadian university". The study had two objectives –

- (1) To examine the information seeking habits of the non-faculty professionals and managerial staff of a large academic institution, namely the university of Western Ontario.
- (2) To explore what role the campus library system played in meeting the information needs of these group 148 surveys were for a response rate of 41%. It was found that when respondents visited a library on campus, the majority (53%) did so to consult a reference book, such as a handbook or directory, about a third of the survey respondents indicated that they used campus libraries frequently, the majority used them only rarely or never.
- (3) It was suggested that our understanding of the information needs and information – seeking patterns of professional and managerial employees could be greatly enhanced through future research. Any efforts in this direction should be with

the goal of enabling university employees at all levels to make more informed and effective decisions in running the university.

Hari Krishna Reddy and Karisiddappa (1997)¹⁴ made a study under the title "Information seeking behaviour of the professionals in the field of disabilities with special reference to mental handicapped to India". The study was aimed to find out the types of communication channels used to know latest information in the field of interest and the source used in performing specific research activities. The questionnaire was sent to 300 professionals working in the field of which feedback from 160 respondents was received (50%). The analysis of the data revealed the following facts –

- (1) User awareness of sources and access to tools vary with age, experience, professionals, educational and managerial status.
- (2) The respondents give first preference to journals for preparing their research articles.
- (3) The respondents give first rank to discussions method as the source of latest information. It suggested that all the special schools should be provided with appropriate resources and collections of materials in the field of disabilities to meet information needs of professionals working with disabled persons.

Ruth L Noble and Carol Coughlin (1997)¹⁵ made a study under the title "information – seeking practices of Canadian Academic Chemists : A study of information needs and use of resources in chemistry". The study was carried out to investigate patterns of research and information seeking practices of chemists in Canadian University. The purpose was to obtain a better understanding of academic chemists information needs, preferences and practices. 12 departments from nine provinces were then selected to achieve a geographical balance. Questionnaires were sent to individuals faculty in each of the departments selected to be surveyed. 355 questionnaires sent, 131 usable returns represented a 37% return rate, the 131 respondents represent the primary subjects of chemistry and included analytical (11), inorganic (916), organic (38) and physical (35) chemists as well as 18 biochemists. The findings of present study was–

- (1) Browsing print journal's in their speciality was ranked highest (85%) of all activities, out of the 131 respondents 98 have personal subscriptions to journals.
- (2) 99% had computers, 89% had access to communication software and 87% were connected to the campus network, CD-Rom equipped computers were available to 64% of the chemists.
- (3) Obstacles to using electronic information technologies revealed that 73% respondents lack time to explore technologies, 38% lack operating funds, 35% lack training in

how to access electronic resources, 4% lack information on available databases/resources, 15% lack hardware, 15% lack software, 11% lack interest or need.

Neena Thelwar Kanungo (1997)¹⁶ made an attempt to investigate the methods of seeking information by the women researchers in the disciplines History and political science in the university of Delhi and JNU. The investigators collected the data from 130 women research scholars through questionnaire. The study discloses the following findings –

- (1) The main purpose of the women researches was to collect information for writing either M.Phil or Ph.D thesis.
- (2) The women researchers in History carry out their work mainly in four broad areas such as ancient Indian history, modern Indian history and world history.

Veena Saraf and others (1997)¹⁷ made a study under the title "A study of relationship among information needs, Channels and sources." To find out the relationships among information needs, channels and sources and their impact on background variables, namely age, sex, qualifications and status and to identify the relationship between the use of channels. The method used for data collection was questionnaire. Major findings were :-

- (1) The respondents need information for keeping abreast with the latest developments.

- (2) The channels used for information gathering were lectures, seminars and personal collection.
- (3) The sources used were journals and research reports.

Francis Jacobson and Emily Ignacio (1997)¹⁸ conducted a study under the title "Teaching reflection information seeking and evaluation in a digital library environment." The objectives of the study was to teach the students to become an effective seekers and to understand the relationship of their skills to seeking of information in various contexts. The investigators collected the data from the students of an introductory computer course, by giving assignments to them including E-mail and interest. Major findings were :-

- (1) User friendly digital library interfaces are not enough, but skilled mediation and intervention will always be necessary.
- (2) The most used source was E-mail. /
- (3) Most of the students make mistakes in searching.

Fidzani (1998)¹⁹ Conducted a survey to determine the information seeking behavior and use of information sources by graduate students at university of Botswana and indicated that guidance in the use of library resources and services is necessary. Periodicals and textbooks are the most popular sources of information for course work and research. He suggested that students need to be brought how to use the library. /

Pelzer et.al. (1998)²⁰ Studied veterinary medical students at Iowa state university and found a major shift from the use of print indexes and abstracts in 1987 towards the use of computerized indexes and other electronic resources in 1997.

Prasad and Tripathi (1998)²¹ revealed that the journals were most frequently used sources of information among the physical scientists as well as social scientists of Banaras Hindu University. It was found that 77.77% physical scientists made use of formal channel of information whereas among the social scientists, 88.24% used formal channel of information. The percentage of social scientists using abstracting and indexing periodicals and current contents was significantly low as compared to that of physical scientists. A majority consisting of 66.66% physical scientists and 58.88% social scientists had books to their credit, current information was used by 77.777% of physical scientists, whereas 94.12% social scientists used socio-economic information followed by retrospective information which was used by 82.35% of them. The study concluded with general impression that whole library needs to be improved tremendously as suggested by 76.4% social scientists.

Ammini (1999)²² found that 76.47% of the respondents i.e. students of B. Tech., M. Tech., and research scholars in ship technology have used the library regularly while 86.67% respondents showed their first preference to books. But only 50% respondents expressed the view that library collection is adequate. The study revealed that 65% respondents consult indexing,

abstracting and reviewing periodicals. The respondents who depended on ship technology library were found to be 72.65%.

Rita Marcella and Graeme Baxter (1999)²³ made a study under the title "The information needs and the information seeking behaviour of a national sample of the population in the UK with special reference to needs related to citizenship." This study reported the results of a survey of information needs and information seeking behaviour of a national sample of the UK population. The project was funded by the British library research and innovation center and comprised a survey by questionnaire covering all regions of the UK. 1,294 responses were received giving a valid demographically representative response rate of 45.7%. Major findings include : that the majority of respondents had sought information post (59.4%) and that an even greater number predicted a future need for information (78.4%), over three quarters of respondents said that they would use public libraries and between half and three quarters would approach post offices, governments departments or family and friends. Face to face communications and reading a book were the most popular means of accessing information but a wide variety of other preferred options were cited. Only a small proportion expressed a preference for using a computer to seek information and there was a clear emphasis on public libraries as an appropriate location for accessing computerized information. A highly significant majority (79.2%) believed that access to information was very important, for

exercising their rights as citizens. Many significant variables in terms of age, gender, status and region were found

Dennis N. Ocholla (1999)²⁴ made a study under the title "Insights into information seeking and communication behavior of Academics." The present study discussed the information seeking behavior of academics in relation to the productivity of academics in South African university, with particular reference to the university of Zululand. The aim of the study was to identify the types of information resources frequently used by academics, whether they differ with discipline and how academics learn of the existence of the information sources they use to determine why they look for information, to find out what sources of information are used by the academics, to find out how academics disseminate information once they get it. In the present study a survey was targeted at academics in the 6 faculties and 54 teaching departments comprising 327 teaching staff at the university of Zululand. Questionnaires were used for data collection in all cases. It was established that the nature of the discipline and the rank of the academic which normally corresponds with the academic qualification experience, exposure and research productivity level largely determines the information seeking behavior Academics mainly need information for career development and occupational and professional needs. University libraries which currently face budget cuts on acquisitions, still play a pivotal role in information access by the academics. It was recommended that a venue that work colleagues can use to interest should be supported and career

challenges that stimulate productivity by academics, such as research and publication should be maintained and sustained.

R. Siatiri (1999)²⁵ made a study under the title "Information seeking in electronic environment : a comparative investigation among computer scientists in British and Greek Universities." An International conference on information needs, seeking and use in different contexts, Sheffield August 1998. The study aimed to examine the information seeking Behavior of academic scientists in an electronics environment and compare the information seeking behavior of users in universities in UK and Greece. The objectives included : Investigation into the different practices and methods used by computer scientists in retrieving information from electronic information sources. And identification of the types and range of electronic information, resources used currently by academics and determine the level and spread of their use narrowing. The focus of the study should the particular group of scientists. A more detailed and accurate profile of the users leading to an in-depth understanding of the information seeking process.

Gillian Conrey suran Parker and Sylvie Davies (2000)²⁶ made a study under the title "The European information needs of secondary schools teachers in Scotland : recent developments in the provision of information to schools and colleges." Interviews were under taken with a small sample of teachers and school librarians in selected schools of Aberdeen city and Aberdeen Shire. The results from the survey in Scotland show that there was a need for the network to be extended on a national scale, one of the pressing

challenges for the centers will be to provide publication or resources that are designed specifically for and tailored to the needs of teachers and pupils. In addition the survey has highlighted a number of issues :-

- (i) The lack of understanding among teachers of the actual meaning and implications of the European dimension.
- (ii) The fact that the European dimensions is incorporated in only the modern studies syllabus.
- (iii) The information needs of teachers – issues relevant to currency of the information, content and levels and sources and format.
- (iv) The lack of European information provision in the school library.

It was suggested that further research is required to examine on a larger scale the European information needs of teachers and in particular what they require in terms of resources.

Rita Marcella and Coraeme Baxter (2000)²⁷ made a study under the title “information need, information seeking behaviour and participation with special reference to needs related to citizenship : results of a national survey”. This study reported the results of the second stage of the project : a complementary national survey of the UK public’s citizenship information needs. This was a nation-wide survey by personal doorstep interview of the citizenship information needs of almost 900 members of the UK

public. Major findings include that the public obtains most of their information on current issues via the mass media, and that they feel well informed on these issues. Small proportions of the sample had encountered problems concerning employment, education, housing or welfare benefits and has consulted a range of information sources in order to overcome these problems. The majority of respondents felt well informed about areas relating to citizenship but significant proportions were poorly informed in legal rights welfare benefits and local politics. A highly majority (91.7%) believed that freedom of information was important for exercising their rights as citizens although access to computers in the home is presently limited and only 12.6% of the respondents had access to the internet at work. The majority of respondents felt that public libraries were suitable places for finding information on some topics. The survey reveals that staffs in public libraries are not Seemed particularly helpful suggesting that there should be emphasis on interpersonal skills training.

Tim Wales (2000)²⁸ conducted a study under the title "Practice makes perfect? Vets' information seeking behaviour and information use explored." The objective of the study was to examine a sample of veterinarians in practice, to discover where and by what mean they looked for the information they needed and what use they made of it once found. A random sample (537 practices) UK Veterinary practitioners was surveyed and interviewed on behalf of the Royal College of Veterinary Surgeons Welcome Library to identify key issues in Veterinary IU and ISB.

A greater proportion of respondents used the internet for veterinary information than used a veterinary library. The final response rate was 39% (n=82). The findings of this study show that the majority of library users and non-users wanted enhanced library access via the internet, especially to full-text journals.

Andrew Dalglish and Robert Hall (2000)²⁹ conducted a study under the title "Uses and perceptions of the World Wide Web in an information-seeking environment." The objectives of the study were : to examine how undergraduate students viewed their information acquisition in terms of the open resource model, this being the closest in concept to the library; to assist students in making best use of all information resources it is necessary to understand their attitudes towards information resources; to attempt to understand students' feelings and responses to the WWW; to choose to access the WWW to a greater or lesser extent. A series of interviews, with opened questions, were conducted with 12 students who were all from one university. Analysis revealed five recurring themes; responses to the information-seeking context; expressed relationship to the process of information retrieval, information seeking strategies; perception of information quality; and attitudes to the feature of the web in higher education. The key factor is students use of the web. /

P.G. Tadasad and Sharanabasappa C Talikoti (2000)³⁰ made a study under the title "Awareness and utilization of resources, services and facilities of city central library, Gulbarga". In order to find out the user awareness and utilization of the

resources services and facilities of CCLG, survey method has been employed for the collection of the data required. The questionnaire was distributed to every fifth person who entered CCLG during first and second week of Jan., 2000. In all 250 questionnaires have been distributed out of which 229 responded with a response rate of 91.6%. The results of the present study are :-

- (1) Nearly 50% of the users visit CCLG weekly, while more than 20% visit occasionally and 18% visit fortnightly, the 11% of the users visit daily.
- (2) More than 60% of the users visit the library, just to borrow and return books while 40% visit the library to read newspapers.
- (3) A greater majority of the users who are aware of the resources are making use of textbooks (87.05%), reference books (88.48%) and general books (69.43%).
- (4) A majority of the users are aware of circulation (61.58%), reference sources (60.69%) more than 60% of the users are unaware of inter-library loan (64.63%) services.
- (5) The analysis shows that significant proportions of the users are unaware of the resources, services and facilities and need awareness programs. Hence the City Central Library, Gulbarga must undertake continuous awareness programs in an extensive way so as to increase the optimum utilization of the resources, services and facilities by the users.

B.S. Garg (2000)³¹ made the study under the title "Information seeking patterns of users of Engineering Institutions in Rajasthan". This study was confined to the information seeking patterns of the faculty members of the engineering discipline serving in various institutions in Rajasthan the sample consisted of 200 (30%) faculty members, out of whom 148 responded with a usable response of 134 randomly drawn from the engineering institutions in Rajasthan. The self designed questionnaire was employed to collect data from the subjects. Data has been analysed with the help of simple statistical techniques such as means, standard deviations etc. and then presented in the tabular forms for analysis and interpretation. It was revealed that the use of formal sources of information journals are optimally utilized followed by books, handbooks, conference literature etc. Whereas face to face discussions occupy the prime position succeeded by personal experience, seminar or conference etc. and use of electronic sources of information goes with computer at top of the list followed by Radio and T.V., E-mail, Audio-Visual sources, compact discs, on-line databases and multimedia. Information sources users prefer to approach instantly. In order of priority rating and ranking of sources for generation of ideas revealed that thinking made the highest contribution followed by Teaching and brain storming conversation.

REFERENCE

- (1) SRIDHAR (MS). Information seeking behaviour of the Indian space technologists. Library science with a slant to documentation. 26(2); June 1989; 127-166.
- (2) KRISHAN KUMAR. Information seeking behaviour of sociologists. In "Social Science Information : Problems and prospects". Ed. By BINWAL (JC), CHANDEL (AS) and SARAF (Vena) 1990; New Delhi; Vikas Publishing House; PP 295-309.
- (3) RAMESH (DB) and KARISIDDAPPA (CR). Information needs of engineering scientists of Regional Research Laboratory, Bhubaneswar : A case study. In "Current Trends in Information Technology : Its impact on information science in India". Ed. By KULDIP CHAND. 1993 ; Batra ; New Delhi; PP. 95-108.
- (4) KORAH (Accamma C) and DEVEARAJAN (G). Information needs and use patterns of Rubber Scientists. IASLIC Bulletin 36(3); September 1991; 89-94.
- (5) GUHA (B). Information seeking and communication behaviour of Indian Scientists : NISSAT study. NISSAT newsletter. 1; 1993; 18-22.
- (6) DEE (C) and BLAZEK (R). Information needs of rural physician: a descriptive study. Bulletin of Medical Library Association. 81(3); July 1993; 259-264.

- (7) GUHA (B). "Information seeking and communication behaviour of Indian Scientists." *International Information Communication and Education*. 13. 1, 1994; 95-101.
- (8) NWEKE (Ken MC). "Information methods of Human and Veterinary medical scientists (HVMS) in Borno State, Nigeria." *Library and Information science Research*. 17; 1995; 41-48.
- (9) M (Lalitha) "Information seeking behaviour of medical and Engineerign personnel – a comparative study withreference to their library use." *Library science* 32; 2; 1995; 65-74.
- (10) OCHOLLA (Dennis N) "Information seeking behaviour by academics preliminary study." *International Information and Library Review.*" *International Information and Library Review*. 28; 4; 1996; 345-58.
- (11) ELLIS (David) and HAUGAN (Merete)" Modeling the Inforamtion seeking patterns of Engineering and Research Scientists in an Industrial Environment." *Journal of Documentation*. 53, 4; 1997; 384-403.
- (12) HART (RL). Information gathering among the faculty of a comprehensive college : Formality and globality. *Journal of Academic Librarianship*. 23(1); January 1997; 21-27.
- (13) WILKINS (Janie L Hassard) and LECKIE (Gloria J). "University professional and managerial staff : Information

needs and seeking." College and research libraries Nov : 1997; 561-574.

- (14) HARIKRISHNA REDDY and KARISIDAPPA (CR). "Information seeking behaviour of the professional in the field of disabilities with special reference to mentally handicapped in India." Annals of Library science and documentation. 44, 1; 1997; 54-64.
- (15) NOBLE (Ruth L) and COUGHLIN (Carol). "Information seeking practices of Canadian Academic Chemists study of Information needs and use of resources in Chemistry." The Journal of Academic Librarianship. Jan. 1997, 35-46.
- (16) KANUNGO (Neena Thelvar). "Methods of seeking information by women researchers in History and Political Science case study of University of Delhi and JNU". Library Herald. 35, 1-2; 1997; 37-43.
- (17) SARAF (Veena) and others. "A study of relationship among information needs channels and sources." Library Herald 35, 3-4; 1997; 40-50.
- (18) JACOBSON (Francis) and IGNATIO (Emily). "Teaching reflection : Information seeking and evaluation in a Digital Library environment." Library Trends 45; 4; 1997; 771-802.
- (19) FIDZANI (BT). Information needs and Information seeking behaviour of graduate students at the university of Botswana. Library Review. 47 (7-8); 1998; 329-340.

- (20) PELZER (NL), WIESE (WH) and LEYSEN (JM). Library use and Information seeking Behaviour of veterinary medical students revisited in the electronic environment. *Bulletin of the Medical Library Association*. 86(3); July 1998; 346-355.
- (21) PRASAD (HN) and TRIPATHI (Manorama). Information seeking behaviour of physical scientists and social scientists. A report. *Annals of Library Science and Documentation*. 45(2); June 1998; 41-48.
- (22) AMMINI (VK). Information needs of the students of ship technology : A survey. *Herald of Library Science* 38 (3-4); July - October 1999; 194-199.
- (23) MARCELLA (Rita) and BAXTER (Graeme). "The information needs and the information seeking behaviour of a national sample of the population in the United Kingdom with special reference to needs related to Citizenship." *Journal of Documentation* 55; 2; 1999; 159-183.
- (24) OCHOLLA (Dennis N). "Insights into information seeking and communicating behaviour of Academics." *International information & Library Review*, 31; 1999; 119-143.
- (25) SIATRI (R). "Information seeking in electronic environment : A comparative investigation among computer scientist in British and Greek Universities." *Information Research*. 4; 3; 1999; 21-32.

- (26) CONROY (Gillian), PARKER (Susan) and DAVIS (Sylvie).
"The European information needs of secondary school teachers in Scotland : Recent developments in the provision of information to schools and colleges." *Aslib proceedings* 52; 7; 2000; 254-263.
- (27) MARCELLA (Rita) and BAXTER (Graeme). "Information need, information seeking behaviour and participation with special reference to needs related to citizenship. Results of a national survey." *Journal of Documentation* 56; 2; 2000; 136-160.
- (28) TIM WALES (2000). "Practice makes perfect? Vets' information seeking behaviour and information use explored."
- (29) ANDREW DALGLEISH AND ROBERT HALL (2000).
"Uses and perceptions of the World Wide Web in an information-seeking environment."
- (30) TADASAD (PG) and TALIKOTI (Sharanabarappa C).
"Awareness and utilization of Resources. Services and facilities of City Central Libraries : A user survey of City Central Library, Gulbarga." *ILA Bulletin* 36, 3; 2000; 80-85.
- (31) GARG (BS). "Information seeking patterns of users of Engineering Institutions in Rajasthan. "Library Herald. 37, 4; 2000; 229-239.

CHAPTER – 3

METHODOLOGY

METHODOLOGY

This chapter deals with the methodology used in the study and has been discussed under the following heading:—

- Selection of the problem
- Objectives of the study
- Hypotheses
- Methodology
- Sample population
- Tools used (pilot survey)
- Data analysis method
- presentation of Data

(1) Selection of the problem :— The problem for the present study is entitled ``Information Seeking Behaviour of the teachers of Bundelkhand University, Jhansi. An Evaluative study.

(2) Objectives of the study :—

- (i) To investigate academics information seeking behaviour within the Bundelkhand University, Jhansi.
- (ii) To identify the types of information resources frequently used by teachers of the Bundelkhand University.
- (iii) To identify the frequency of visit in the library.
- (iv) To establish the reasons for seeking information.
- (v) To find out how the teachers learn the existence of the information sources they use.
- (vi) To learn about the preferred library service utilized by them.
- (vii) To determine the state of up-to-dateness among them.

(3) Hypothesis :-

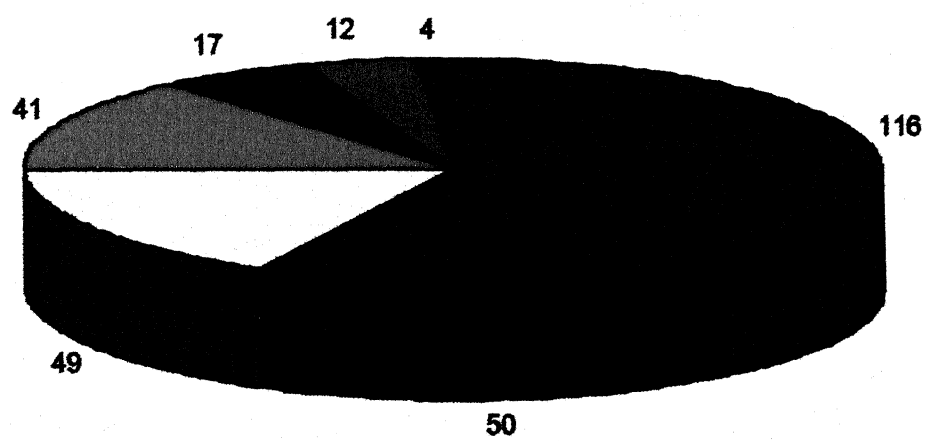
- (i) Faculty members are expected to visit the library frequently, to equip themselves with the current literature for effective teaching and research.
- (ii) Many members are not well aware of the available resources and services.
- (iii) The academics may have a preferred choice of library service.

(4) Methodology :- To collect different types of data from users, a definite methodology is required in the field of information need surveys. There are several techniques available for user studies such as: Questionnaire method, Interview method i.e. Personal and Telephonic, Diary method, observation method etc. Methods like analyzing library records and citation analysis are also being used to compile data on information use studies. For this study the investigation used questionnaire and observation for data collection.

(4.1) Question Method :- Questionnaire method is a useful tool for collecting information from a geographically scattered sample or population at a little cost. This method consists a careful translation of the objectives of survey into a set of questions, may ask for the opinion or factual information. The questions are formed in such a way that the answer can be given by checking Yes or No or by selecting one of the possible answers provided in the questionnaire.

(4.2) Observation :- Observation is the method acquiring knowledge about the world around us observation means systematic viewing of the phenomenon, it is perception with a purpose. It is the oldest and well established technique for collection of data. In measuring, testing.

District wise break-up of Respondents



■ Jhansi ■ Banda □ Jalaun ■ Hamirpur ■ Lalitpur ■ Mahoba ■ Karvi

Figure 3.1

characterizing human beings, the researchers usually begin with the observable behaviour and historical investigation.

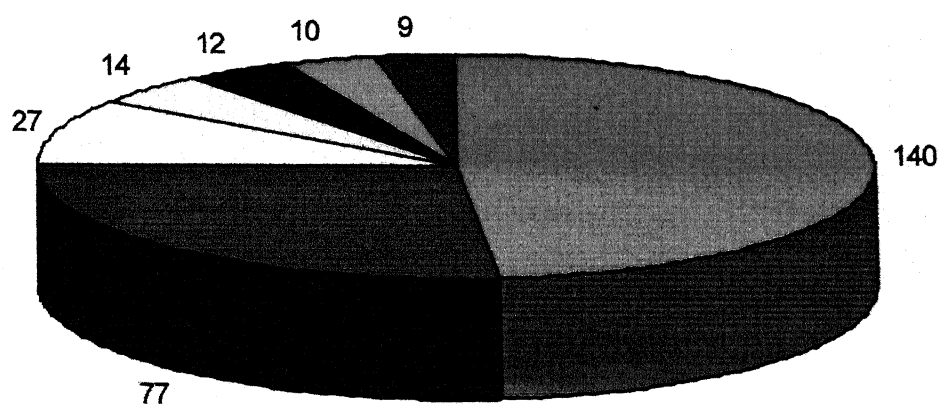
- (5) **Sample :-** The collection of large quantity of data from the entire population of Teachers of Bundelkhand University is too large to be adequately covered in a single study. So the sample of present study consisted of randomly selected teachers of different subjects of Arts, Commerce, Science, Agriculture, Education, Law, Medical, Engineering, Library science, Management and Tourism librarians of different colleges of Bundelkhand University and librarian of Bundelkhand University itself. Therefore out of 735 teachers, the questionnaires are distributed among 500 teachers of different colleges of Bundelkhand University. A total number of 323 filled questionnaires were returned back. Out of these only 289 responses are found usable, this is because of the incomplete response.

(5.1) Distribution of Respondents :-

- (a) By colleges of different districts of Bundelkhand University by Figure 3.1 reveals the number of respondents according to the colleges of different districts of Bundelkhand University. Highest number of respondents (116) are from Jhansi district, followed by (50) from Banda district, (49) from Jalaun district, (41) from Hamirpur district, (17) from Lalitpur district, (12) from Mahoba district and (04) from Karvi district.

Total No. of questionnaires distributed and response received districtwise and response found usable.

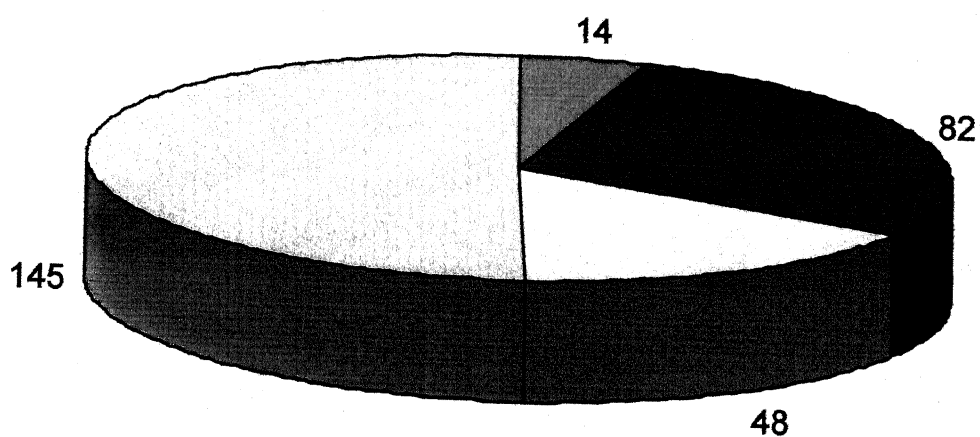
Subject wise break-up of Respondents



■ Art	■ Science	□ Commerce	□ Agriculture
■ Law	■ Medical Science	■ Engineering	

Figure 3.2

Designation (Status) wise break-up of Respondents



■ Professors ■ Readers □ Sr. Lecturers □ Lecturers

Figure 3.3

Academic Qualification wise break-up of Respondents

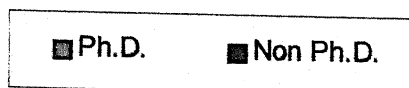
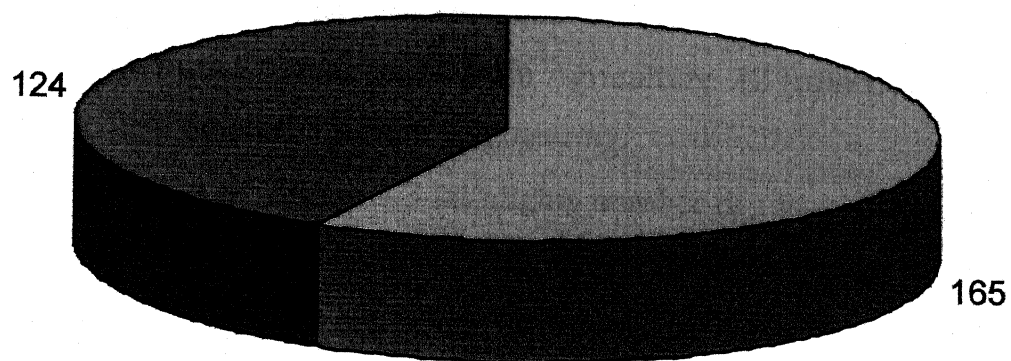
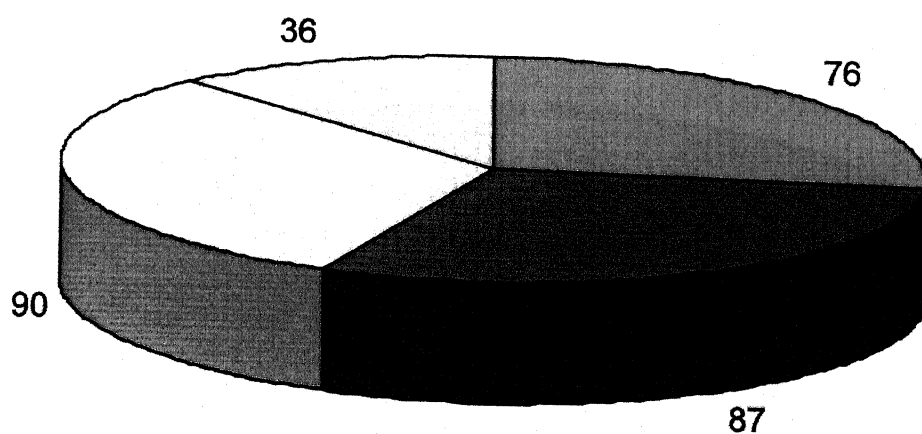


Figure 3.4

District	Total No. of questionnaires distributed	Filled response received	Found usable
Jhansi	230	132	116
Banda	100	58	50
Jalaun	77	54	49
Hamirpur	51	43	41
Lalitpur	21	19	17
Mahoba	15	12	12
Karvi	06	05	04
Total	500	323	289

- (b) **By subject** :- Figure 3.2 indicates the strength of respondents according to their subject. 140 respondents are from Arts, 77 from Science, 27 from Commerce, 14 from Agriculture, 12 from Law, 10 from Medical Science, 09 from Engineering.
- (c) **By designation** :- Figure 3.3 highlights number of respondents by their designation 145 respondents are lecturers, 82 respondents are Readers, 48 respondents are Senior Lecturers and 15 respondents are professors. As it is clear from the figure highest number of respondents are Lecturers followed by Readers, Senior Lecturers and professors.
- (d) **By academic qualification** :- Figure 3.4 mentions the strength of respondents by their academic qualification. The academic qualification is simply divided into Ph.D. holders and Non-Ph.D. holders. As the figure reveals the highest response is from the persons who are Ph.D. holders and Non-Ph.D. holders includes both Post-graduate and M.Phil respondents. 165 respondents hold the Ph.D. degree and 124 respondents are Non Ph.D. holding M.Phil or Post graduate degree.

Age wise break-up of Respondents



■ Below - 35 years ■ 36 - 45 years □ 46 - 55 years □ 56 - above years

Figure 3.5

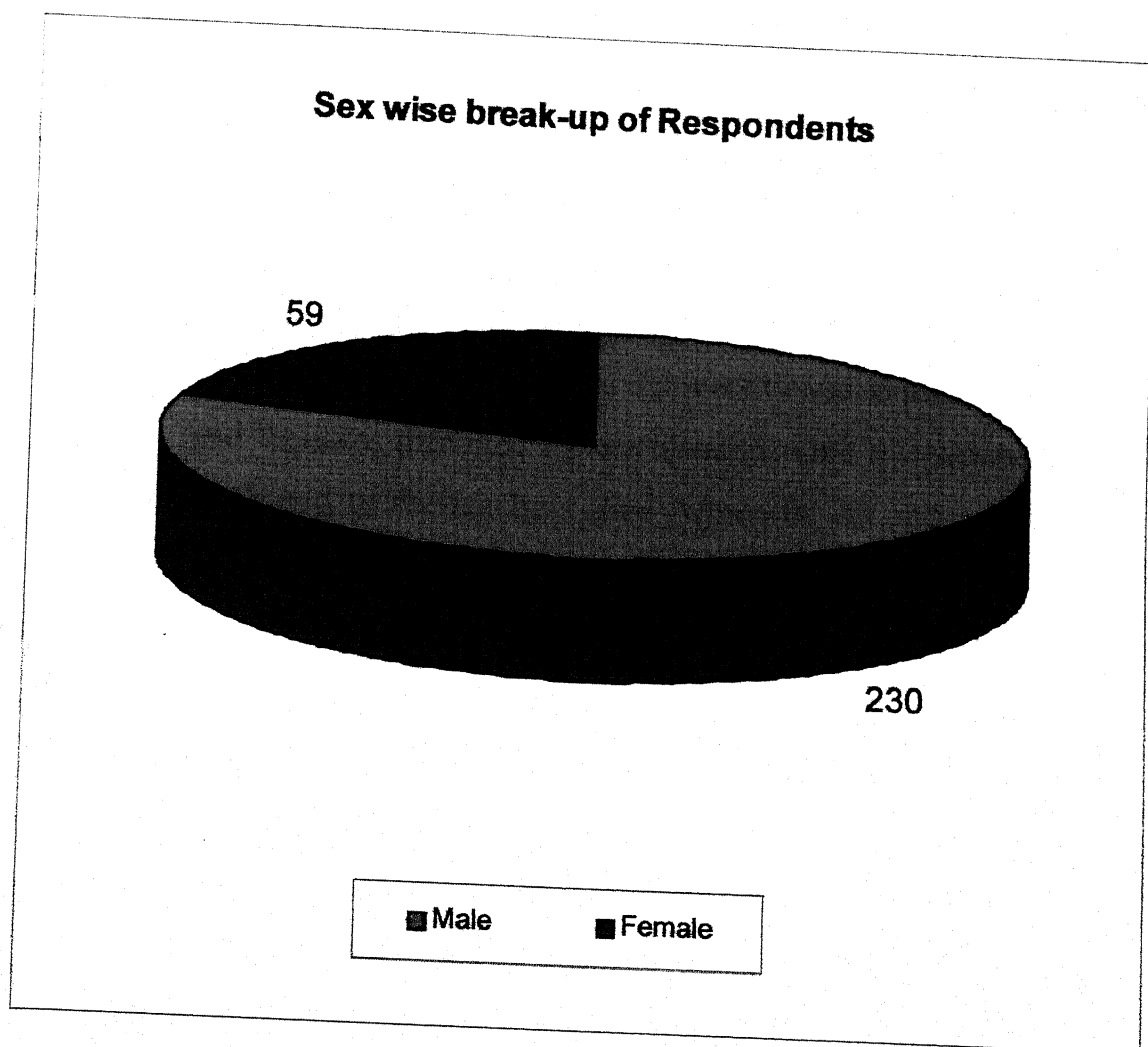


Figure 3.6

- (e) **By Age :-** Figure 3.5 highlights the strength of respondents according to their age. 76 respondents are from the age group of below 35 years, 87 respondents are from the age group of 36–45 years, 90 respondents are from the age group of 46–55 and 36 respondents are from the age group of 56 years and above.
- (f) **By Sex :-** Figure 3.6 distributes the respondents according to their sex. 230 respondents are male and 59 respondents are female which means percentage of male respondents is 79.58% and percentage of female respondents is 20.42%.
- (6) **Tools used :-** Questionnaire prepared by the investigator supplemented by observation is used as tools for data collection. Two questionnaires were prepared to know the information needs and information seeking behaviour of teachers of Bundelkhand University and to identify the services and facilities provided by the libraries. One questionnaire was administered to the teachers (See Appendix A) and another questionnaire was administered to the librarians (See Appendix B).
- (6.1) **Pre-testing (Pilot Survey) :-** A pilot survey was carried on 40 teachers to be sure that the teachers do not have any difficulty in answering the questions and to know whether any of the important aspect has been left uncovered . To ensure that the questionnaires were as meaningful to the average respondent as they were to the investigator, and to decide which questions were relevant for the purpose of the study. Suggestions made by the Science, Art & Commerce teachers were incorporated in the questionnaire so as to modify the questionnaire suitably.

- (6.2) Administration of Questionnaires :-** The investigator personally visited the various colleges and administered the questionnaire. Repeated visits were made to distribute and obtain the filled up questionnaires. Some respondents were not willing to fill up the questionnaire of their own. In such cases, the investigator himself noted down the oral responses given by the respondents.
- (7) Data Analysis method :-** The investigator tried his best to obtain the response of each and every teacher selected for this study. But despite of various visits to all the colleges and university, the data could not be obtained from some teachers due to their non-availability during the visits or unwillingness on their part to provide information. Total 500 questionnaires were distributed to the teachers and librarians among them 323 duly filled up questionnaires were received back, out of these 289 questionnaires were found usable. The data collected through these 289 questionnaires are organized and tabulated by using statistical methods such as chi-square and t-test, tables and percentages. Data collected through observation are used for formulation of the findings.
- (8) Presentation of data :-** After the analysis of data, the data is presented in the form of tables and figures along with a brief description in chapter IV.

CHAPTER – 4

**ANALYSIS
AND
INTERPRETATION**

ANALYSIS AND INTERPRETATION

In the chapter we present the empirical data collected through the distribution of the questionnaire among the sample from the population selected for the study. The responses so obtained are coded and characterized by age, sex, discipline, educational qualifications, status of different teachers in the university and colleges under the Bundelkhand University as the basis independent variable under study are age, sex, educational qualification, status, district and faculty wise. The data are presented in tabular form along with brief description. The analysis of data was subjected to some statistical techniques like chi square test, t test and to fulfill the major research objectives of the present study, the descriptions and chi square test and t test given at 5% level of significance.

Chi Square Test :

Chi square test was applied to identify which information seeking behaviour demonstrates dependence on qualification discipline, age, sex of different university teacher and colleges teachers of Bundelkhand University, teachers in different districts of Bundelkhand region. In this study we use (r x s) contingency table and degree of freedom (df) refers to the number of independent observer data used to calculate each statistic. This is obtained from the number of the rows and number of the columns in the frequency distribution table.

The formula for calculating degree of freedom of (r x s) contingency table is given by –

$$df = (r - 1)(s - 1)$$

where r is the number of rows and s is the number of the columns.

The formula for the calculating chi square test is given by –

$$\chi^2 = \sum \frac{(f_i - e_i)^2}{e_i}$$

where f_i is the frequency of the observed facts and e_i is the expected frequency of occurrence on independence hypothesis.

In the above formula the differences between observed and expected frequency are squared and divided by the expected number in each case and some of these values are equal to chi square value. We reject the null hypothesis, if the calculated value $\chi^2 >$ the tabulated value χ^2 with $(r - 1)(s - 1)$ degree of freedom at 5% level of significance. More closely the observed result approximates to the expected, the smaller the χ^2 and the agreement between the observed the hypothesis being tested. In the words we say that the calculated value of $\chi^2 <$ tabulated value of $\chi^2_{(r-1)(s-1)}$ (.05) that is, no difference between observed data and the hypothesis being treated on the other hand, the larger the χ^2 , greater the probability of real difference of experimentally observed data of the expected result.

The probability (P) indicates the level of statistical significance. The significant (P) is equal to 0.05 or less than 0.05.

t-test

To make comparative studies we will use t-test for difference of means which is given by

$$t = \frac{\bar{X}_1 - \bar{X}_2}{S \sqrt{\frac{1}{n_1} + \frac{1}{n_2}}}$$

Which follows t - distribution with $(n_1 + n_2 - 2)$ degrees of freedom.

Where \bar{X}_1 = mean of first sample

\bar{X}_2 = mean of second sample

$$S = \sqrt{\frac{n_1 S_1^2 + n_2 S_2^2}{n_1 + n_2 - 2}}$$

S_1 = S.D. of first sample

S_2 = S.D. of second sample

$$S_1 = \sqrt{\frac{\sum f(x_1 - \bar{x}_1)^2}{N_1}}$$

$$S_2 = \sqrt{\frac{\sum f(x_2 - \bar{x}_2)^2}{N_2}}$$

$$\text{Mean} = \bar{x}_1 = \frac{\sum fx_1}{N_1}$$

$$\text{Mean} = \bar{x}_2 = \frac{\sum fx_2}{N_2}$$

1 District Wise Breakup Of Respondents

Table 2

<i>District</i>	<i>Sample</i>	<i>Respondent</i>	<i>Percentage</i>
Jhansi	230	116	50.43%
Banda	100	50	50%
Jalaun	77	49	63.64%
Hamirpur	51	41	80.39%
Lalitpur	21	17	80.95%
Mahoba	15	12	80%
Karvi	06	04	66.67%
Total	500	289	57.8%

Above table highlights the frequency of the district wise breakup of respondents. Total number of respondents in Jhansi district are 116 (50.43%) out of a sample of 230. The total number of respondents in Banda district are 50 (50%) out of a sample of 100. the total number of teachers who are respondent in Jalaun district is 63.64% whereas the total number of teachers who are respondent in Hamirpur, Lalitpur, Mahoba and Karvi are 80.39%, 80.95%, 80% and and 66.67% respectively. The persual of Table-2 reveals that among all the respondents (289), the percentage of respondents in Lalitpur district is maximum and the percentage of respondents Banda district is minimum.

Table 3
College wise respondent in Jhansi District

<i>College</i>	<i>Est. Year</i>	<i>Sample</i>	<i>Respondent</i>	<i>Percentage</i>
1. Bundelkhand Degree College, Jhansi	1949	50	32	64%
2. Bipin Bihari Degree College, Jhansi	1959	23	09	39.13
3. Araya Kanya Degree College, Jhansi	1962	08	04	50%
4. Govt. Girls Degree College, Jhansi	1996	04	03	75%
5. Guru Hari Kisan Degree College, Jhansi	1993	05	04	80%
6. Dr. R.P. Richariya Degree College Barua Sagar, Jhansi	1993	08	06	75%
7. Smt. Ganeshai Bai Soni Degree College Mauranipur, Jhansi	2000	05	04	80%
8. Shri Agarsen Degree College Mauranipur, Jhansi	1972	10	09	90%
9. Govt Degree College Samthar, Jhansi	1996	02	01	50%
10. Sw. Shri RamSwaroop Degree, College Poonch, Jhansi	1999	15	09	60%
11. Maha Rani Laxmi Bai Medical College, Jhansi	1969	39	10	25.64%
12. Bundelkhand Institute of Engineering & Technology, Jhansi	1989	13	9	69.23%
13. Bundelkhand Uni. Campus, Jhansi	1986	48	16	33.33%
Total		230	116	50.43%
Note – Est –Establishment				

Above table gives total number of teachers who responded in different colleges of Jhansi district. The number of teachers who responded from Bundelkhand degree college is 32 (64%). The maximum number of teachers who responded from Sri Agarsen degree college, Mauranipur is 09 (90%). There are 13 degree college in Jhansi district. The number of teachers who responded from Bipin Bihari College is 09 (39.13%). The percentage of teachers who responded in different colleges like Arya Kanya Degree College, Govt. Girls Degree College, Jhansi, Dr. R.P. Richariya Degree College, Baruasagar, Smt. Ganesi Bai Degree College, Mauranipur are 50%, 75%, 75% and 80% respectively. The percentage of teachers who responded in Guru Harikishan Degree College, Govt Degree College – Samthar, Swargeeya Shri Ram Swaroop Degree College – Poonch, Maharani Laxmi Bai Medical College, Bundelkhand Institute of Engg. & Technology and Bundelkhand University campus are 80%, 50%, 60%, 25.64%, 69.23% and 33.33% respectively.

Table 4
College wise respondents in Banda District

<i>College</i>	<i>Year</i>	<i>Sample</i>	<i>Respondent</i>	<i>Percentage</i>
1. Pt. J.L.N. Degree College, Banda	1964	41	18	43.90%
2. Govt. Girls Degree College, Banda	1981	11	10	90.91%
3. Atarra P.G. College, Atarra Banda	1960	28	09	32.14%
4. S.S. Rajeev Gandhi Commerce Degree D.A.V. College, Banda	2001	03	03	100%
5. Zila Parishad Agriculture College, Banda	1994	08	03	37.5%
6. Sukhdev Singh Love Kush Degree College Baberu, Banda	2001	09	07	77.78%
Total		100	50	50%

Above table gives the total number of respondents in different colleges of Banda district. The total number of teachers who responded in Pt. J.L.N. College, Banda is 18 (43.90%). The number of teachers who responds in Govt. Girls Degree College is 10 (90.01%). The percentage of teachers who responded in Atarra P.G. College, Sw. Shri Rajeev Gandhi Commerce D.A.V. Degree College, Banda, Zila Parishad Agriculture College and Sukhdev Singh Love Kush Degree College is 32.14%, 100%, 37.5% and 77.78% respectively. The overall respondents in different colleges of Banda district is 50 (50%) out of a sample of 100 teachers.

Table 5
College wise Respondent in Jalaun District

<i>College</i>	<i>Est. Year</i>	<i>Sample</i>	<i>Respondent</i>	<i>Percentage</i>
1. D.V. College, Orai	1951	27	15	55.56%
2. Gandhi Degree College, Orai	1966	16	07	43.75%
3. Sanatan Girls Degree College, Orai	1993	05	03	60%
4. Fundi Singh Launa Govt. Degree College, Jalaun	1981	08	07	87.5%
5. S.A.K. Degree College, Atra Kalan Jalaun	2001	03	02	66.67%
6. Mathura Prasad Patel Degree College, Konch Jalaun	1973	08	05	62.5%
7. Kalpi Degree College, Kalpi	1971	10	10	100%
Total		77	49	63.64%

The above table gives the total number of respondents in different colleges of Jalaun district. The number of teachers who responded in D.A.V. College – Orai is 15 (55.56%). The maximum number of respondents is in Kalpi Degree College – Kalpi, where teachers response is 100%. The percentage of teachers who responded in Gandhi Degree College, Sanatan Degree College – Orai, Fundi Singh Launa Govt Degree College, Smt. Amrit Kunwar Degree College, Jaloun and Mathura, Prasad Patel Degree College are 43.75%, 60%, 87.5%, 66.67% and 62.05 respectively

Table 6
College wise Respondents in Hamirpur District

<i>College</i>	<i>Est. Year</i>	<i>Sample</i>	<i>Respondent</i>	<i>Percentage</i>
1. Brahmanand Degree college, Rath	1960	26	24	92.31%
2. Govt. College Hamirpur	1975	16	10	62.5%
3. Govt. Girls Degree College, Hamirpur	1993	04	03	75%
4. Naga Swami Girls Degree College, Bharwa Sumerpur	2001	03	03	100%
5. Govt. Degree College, Maudha	1997	02	01	50%
Total		51	41	80.39%

In the Above table the total number of respondent teachers of different colleges of Hamirpur district is 41 (80.39%). The total response from Brahma Nand Degree College, Rath is-24 teachers, responded out of 26 teacher the percentage of teachers who responded is 92.31%. The total number of respondents of Govt. Degree college, Hamirpur is 10 (62.5%). The percentages of teachers who responded in Govt. Girls Degree College, Naga Swami Girls Degree College and Govt Degree College, Maudha are 75%, 100% and 50% respectively.

Table 7
College wise repondent in Lalitpur District

<i>College</i>	<i>Est. Year</i>	<i>Sample</i>	<i>Respondent</i>	<i>Percentage</i>
1. Nehru Degree College, Lalitpur	1968	08	07	87.5%
2. Govt. Degree College, Talbhet	2000	01	01	100%
3. Pt. Deen Dayal Upadhyay Govt. Degree College, Mehroni	1996	02	01	50%
4. Sri Raghuveer Singh Govt. Degree College, Lalitpur	1981	10	08	80%
Total		21	17	80.95%

The above table gives the total number of respondents in different colleges of Lalitpur district. The number of respondents in Lalitpur district is 17 (80.95%). The number of teachers who responded in Nehru degree college is 07 (87.50%). The number of teachers who responded in sri Raghuveer Singh Govt. degree 08 (80%). The percentage of teachers who responded in Pt. Dean Dayal Upadhyay degree college is 01 (50%) where as in Govt Degree College Talbhet is 01 (100%).

Table 8
College wise Respondents in Mahoba District

<i>College</i>	<i>Est. Year</i>	<i>Sample</i>	<i>Respondent</i>	<i>Percentage</i>
1. Veer Bhumi Govt. Degree College, Mahoba	1988	10	09	90%
2. Dr. Headgavour Govt Degree College, Charkhari	1982	05	03	60%
Total		15	12	80%

The above table gives the total number of respondents in different colleges of Mahoba district. The total number of respondents in Veer Bhumi Govt. degree college, Mahoba is 09 (90%). And that in Dr. Hadgavor Govt Degree College, Charkhari in 03 (60%) The overall respondents in Mahoba district is 12 (80%).

Table 9
College wise Respondents in Karvi District

<i>College</i>	<i>Est. Year</i>	<i>Sample</i>	<i>Respondent</i>	<i>Percentage</i>
1. Goswami Tulsi Das Govt. Degree College, Karvi	1988	03	02	66.67%
2. Maha Mati Pran nath Degree College, Mau Karvi Chitrakoot	1982	03	02	66.67%
Total		06	04	66.67%

The above table gives college wise respondents in different colleges of Karvi District. The total number of teachers who responded in Karvi District is 04 (66.67%). The percentage of respondents in Goswami Tulsi Das Govt Degree College, Karvi is 02 (66.67%) and that in Maha Mati Pran Nath degree college Mau Chitrakoot is 02 (66.67%).

Table – 10

Faculty wise Respondents of different district

District /Subject	Jhansi	Banda	Jalaun	Hamirpur	Lalitpur	Mahoba	Karvi	Total
Art	46	28	33	16	08	05	04	140
Science	29	15	14	12	06	01	-	77
Commerce	10	03	02	04	02	06	-	27
Agriculture	-	04	-	09	01	-	-	14
Law	12	-	-	-	-	-	-	12
Medical	10	-	-	-	-	-	-	10
Engineering	09	-	-	-	-	-	-	09
Total	116	50	49	41	17	12	04	289
Percentage	40.14	17.30	16.95	14.19	5.88	4.15	1.38	

The above table gives the number of teachers respondent in different district of Bundelkhand region in different faculty is. In Jhansi district the total number of respondents in different faculties is 116 (40.14%), in Banda District is 50 (17.30%) in Jalaun District

is 49 (16.95%) in Hamirpur district is 41 (14.19%) in Lalitpur. Mahoba & Karvi is 17 (5.88%) 12 (4.15%) and 04 (1.38%) respectively.

Table – 11
Arts subject wise respondent of different district

District /Subject	Jhansi	Banda	Jalaun	Hamirpur	Lalitpur	Mahoba	Karvi	Total
Hindi	07	06	04	04	02	01	02	26
English	06	04	03	03	-	-	02	18
Sanskrit	05	-	04	02	01	02	-	14
Economics	05	02	02	01	01	-	-	11
History	03	-	02	01	02	-	-	08
Pol. Sci.	08	04	03	01	-	01	-	17
Philosophy	-	01	-	-	-	-	-	01
Sociology	01	03	03	01	01	-	-	09
Education	03	5	05	-	-	-	-	13
Psychology	01	-	03	01	01	-	-	06
Geography	01	01	04	2	-	01	-	09
Music	-	01	-	-	-	-	-	01
Urdu	-	01	-	-	-	-	-	01
Lib & Inf science	05	-	-	-	-	-	-	05
Rural eco	01	-	-	-	-	-	-	01
Total	46	28	33	16	8	05	4	140

Table – 12

***Science & Commerce subject wise
respondent of different district***

Geology	02	-	-	-	-	-	-	02
Mil-Science	-	03	-	-	-	-	-	03
Home Science	01	-	-	-	-	-	-	01
Physics	05	3	03	-	1	-	-	12
Chemistry	06	03	06	4	3	01	-	23
Mathematics	03	2	01	3	-	-	-	9
Zoology	04	-	02	02	-	-	-	8
Botany	03	04	02	03	2	-	-	14
MCA/MSc	05	-	-	-	-	-	-	05
Total	29	15	14	12	6	1	-	77

&

Commerce	7	03	02	04	2	6	-	24
MBA	01	-	-	-	-	-	-	01
HM&T	02	-	-	-	-	-	-	02
Total	10	03	02	04	02	06	-	27

Table 11 and table 12 gives the total number of respondents in different subjects of Arts, Science and Commerce respectively.

Table – 13

Faculty wise break up of Respondents in different colleges of Jhansi District

College	B K D Jhan si	B B C Jhansi	A K D.C. Jhansi	Govt. G.D. C Jhansi	G.H. D.C. Jhan si	Dr R.P. Bar wasa gar	Smt. G.B D.C Mauran ipur	Sri. A.S D.C Mauran ipur	Govt D.C Sam thar	S.R.S D.C Poonch	M.L.B Medical College Jhansi	B.I E. & T. Jhan si	B.I Cam pus	Tot al
Art	17	-	3	3	-	1	1	9	1	05	-	-	6	46
Science	1	09	1			4	3			04			7	29
Comme rce	3				4								3	10
Agricult ure														-
Law	11					1								12
Medical											10			10
Enginee ring												9		9
Total	32	9	4	3	4	6	4	9	1	9	10	9	16	116
Percent age	27.58	7.76	3.45	2.59	3.45	5.17	3.45	7.76	0.86	7.76	8.62	7.76	13.79	

The above table gives the number of respondents in different colleges of Jhansi district with respect to faculty wise. The number of respondents in Arts in different colleges of Jhansi district is 46 where as in science 29 and in commerce 10. The number of respondents in Law faculty is 12 in medical faculty is 10 and in Engineering faculty is 9 .

The percentages of respondents in Bundelkhand College and BIET are 27.58%, 7.76%, 8.62% and 7.76% respectively.

Table – 14

***Faculty wise break up of respondents in different colleges of
Banda, District***

College Subject	J.N. College Banda	Govt. Girls Degree College Banda	A.P.G. College Atarra	SriRajeev Gandhi Commerce D.A.V.C. Banda	Zila Parishad Ag. College Banda	S.S.L. K.D.C. Baberu Banda	Total
Art	08	10	07	-	-	03	28
Science	10	-	01	-	-	04	15
Commerce	-	-	01	02	-	-	03
Agriculture	-	-	-	01	03	-	04
Total	18	10	09	03	03	07	50
Percentage	36	20	18	6	6	14	

The above table gives the number of respondents in different colleges of Banda district with respect to faculties wise. The number of respondents in Arts in Banda district is 28 where as in science 15 ,the number of respondents in Commerce and Agriculture faculty is 03 in and 04 respectively. The percentages of respondent in Pt. JLN College, Govt. Girls Degree College, Atarra College Atarra and Sukh Dev Singh Love Kush Degree College Baberu is 36%, 20%, 18% and 14% respectively. The number of respondently in Rajeev Gandhi D.A.V. Commerce College and Zila Parishad Agriculture College is 6% each.

Table – 15

***Faculty wise break up of respondents in different colleges of
Jalaun, District***

College Subject	D.V. College Orai	Gandhi College Orai	Sanatan G.College Orai	Fundi Singh Launa Govt. D. C. Jalaun	S.A.K.D. C. Atra Kalan Jalaun	Mathura P. Patel D.C. Konch	Kalpi Degree College	Total
Art	04	07	03	05	01	03	10	33
Science	11	-	-	-	01	02	-	14
Commerce	-	-	-	02	-	-	-	02
Total	15	07	03	07	02	05	10	49
Percentage	30.61	14.28	6.12	14.28	4.08	10.2	20.41	

The above table gives the number of respondents in different faculties and different colleges of Jalaun district. The number of respondents in Arts in different college of Jalaun district is 33 whereas in Science and Commerce is 14 & 02 respectively. The percentage of respondents in D.V. College in Arts, Science and Commerce is 30.61% and in Gandhi College, Orai as well as Fundi Singh Lona Govt. College is 14.28%. The number of respondents in Kalpi Degree College is 20.41% and in Sanathan Dharam Girls College, Orai is 6.12%.

The number of respondents in S.A.K.D.C. Atra Kalan, Jalaun and Mathura P.Patel D.C. Konch is 4.08% and 10.2% respectively.

Table – 16

Faculty wise break up of respondent in different colleges of Hamirpur, District

College Subject	B.N.V.C Rath	Govt. D.College Hamirpur	Govt. Girls D.C Hamirpur	Naga Swami Girls .D.C. Bharua Sumerpur	Govt. D.College Maudha	Total
Art	02	07	03	03	01	16
Science	10	02	-	-	-	12
Commerce	03	01	-	-	-	04
Agriculture	09	-	-	-	-	09
Total	24	10	03	03	01	41
Percentage	58.54	24.39	7.31	7.31	2.44	

The above table gives the faculty wise respondents of different colleges in Hamirpur district. The total number of respondents in Arts faculty is 16 in Science faculty is 12, in Commerce faculty is 4 and in agricultural faculty is 9. The total no. of respondents in B.N.V. Rath, in 4 faculties is 24 (58.54%) in Govt. degree college Hamirpur is 10 (24.29%) whereas in Govt Girls Degree College is 3 (7.31%). The no. of respondents in Govt Degree College, Maudha is 1 (2.44%). The no of respondents in Naga Swami girls D.C. Bharwa Sumerpur is 03 (73%).

Table – 17
Faculty wise break up of respondents in different
Colleges of Lalitpur, District

College Subject	Nehru College Lalitpur	Govt. Degree College Talbhet	Pt. D.D.U. G.D.C. Mehrouni	Sri R. Singh G.D.C. Lalitpur	Total
Art	06	01	01	-	08
Science	-	-	-	06	06
Commerce	-	-	-	02	02
Agriculture	01	-	-	-	01
Total	07	01	01	08	17
Percentage	41.18	5.88	5.88	47.06	

The above table gives the number of respondents in different faculties of different colleges of Lalitpur district. the number of respondents in Arts faculties is 8 in Science faculty is 6 whereas in commerce is 2 and in agriculture is 1 the total no. of respondents in these four faculties is 7 (41.18%) and in Govt. Degree College, Talbhat and Pt. Din Dayal Upadhyaya Govt. Degree College, Mehrouni is 1 (5.8%) each. The no of respondents in Raghuveer Singh G.D.C., Lalitpur is 08 (47.06%)

Table – 18
Faculty wise break up of respondents in different Colleges of
Mahoba, District

College Subject	Veer Bhumi Govt. D.C. Mahoba	Dr. H. Govt. Degree Charkhari	Total
Art	02	03	04
Science	01	-	01
Commerce	06	-	06
Total	09	03	12
Percentage	75	25	

The above table gives the number of respondents in different faculties of different college of Mahoba district in different

faculties like Arts, Science, Commerce. The total no of respondents in Arts and Commerce in Mahoba district is 4 and 6 respectively whereas in science is 1 the total no. of respondent in Veer Bhumi Govt Degree College, Mahoba is 9 (75%) and Dr. Hadgaver Degree College, from Charkhari is 3 (25%).

Table – 19

Faculty wise break up of respondents in different colleges of Karvi District

College Subject	Goswami Tulsi Das Govt. Degree College, Karvi	Mahamati Pran Nath Degree College Mau Chitrakoot	Total
Art	02	02	04
Science	-	-	-
Total	02	02	04
Percentage	50	50	

The above table gives the number of respondent in different faculties of different colleges in Karvi districts in Arts, Science faculty. The total number of respondents in Arts faculties is 4 (100%), in Science there is no respondent. The no of respondents from Swami Tulsi Das Govt Degree College Karbi Mahamati Prannath Degree College Mau, Chitrakoot is 2 (50%) each.

Table – 20
Status wise breakup

College Subject	Professor	Reader	Sr. Lecturer	Lecturer	Total
Jhansi F	14	24	13	65	116
P	12.07	20.69	11.21	56.03	
Banda F	-	18	05	27	50
P	-	36.00	10.00	54.00	
Jaloun F	-	22	09	18	49
P	-	44.90	18.37	36.73	
Hamirpur F	-	09	14	18	41
P		21.95	34.15	43.90	
Lalitpur F	-	05	04	08	17
P		29.41	23.53	47.06	
Mahoba F	-	02	01	09	12
P		16.67	8.33	75.00	
Karvi F	-	02	02	-	04
P		50.00	50.00		
Total	14	82	48	145	289

F = Frequency P = Percentage

The above table gives the status wise break up in seven different districts Jhansi, Banda, Jalaun, Hamirpur, Lalitpur, Mahoba and Karvi. In Jhansi District the total number of professors is 14 and (12.07%), whereas in other districts there is no professor. The total number of Readers in Jhansi district is 24 (20.69%) Whereas in Banda district the total number of Readers is 18 (36%). The total percentage of Readers in Jalaun district is 44.90%.

The number of Readers in Hamirpur & Lalitpur is 09 (21.95%) and 05 (29.41%) respectively. The total number of readers in Mahoba and Karvi district is 02 (16.67%) and 50% respectively. In Jhansi district the total number of Sr. Lecturer is 13 (11.21%) whereas in Banda district, Jalaun district Hamirpur district, Lalitpur, Mahoba and Karvi district are 05 (10%), 09 (18.37%), 14 (34.15%) 04 (23.53) 01 (8.33%) and (50%) respectively.

The total number of Lecturers in Jhansi, Banda, Jalaun, Hamirpur, Lalitpur, Mahoba district are 65 (56.03%), 27 (54%) (36.73%), 18 (43.90%), 08 (47.86%), 09 (75%). There is no lecturer in Karvi district. In a sample of 289 there are 14 professors a 82 Readers 48 Sr. Lecturer and 145 Lecturers all the Seven districts and the total number of teachers in Jhansi, Banda, Jalaun, Hamirpur, Lalitpur, Mahoba and Karvi district are 116, 50, 49, 41, 17, 12 and 04 respectively.

Table – 21

Qualification wise break up in different Districts

College Qualification	Jhansi	Banda	Jaloun	Hamirpur	Lalitpur	Mahoba	Karvi	Total
F	56	27	35	22	14	08	03	165
Ph.D.								
P	48.28	54	71.43	53.66	82.35	66.67	75	57.09
F	60	23	14	19	03	04	01	124
Non Ph.D.								
P	51.72	46.1	28.57	46.34	17.65	33.33	25	42.91
Total	116	50	49	41	17	12	04	289

F = Frequency P = Percentage

The above table gives Qualification wise break up in different districts of Bundelkhand region. The number of teachers who are Ph.D. in Jhansi District is 56 (48.28%) whereas Non PhD. are 60 (51.72%). The total number of teachers with Ph.D in Banda, Jalaun, Hamirpur, Lalitpur, Mahoba and Karvi district are 27 (54%), 35 (71.43%), 22 (53.66%), 14 (82.35%), 08 (66.67%) and 03 (75%) respectively whereas non – Ph.D in these districts are 23 (46%), 14 (28.57%) 19 (46.34%) 03 (17.65%) 04 (33.33%) and 01 (25%) respectively.

Table – 22
Sex wise break up in different Districts

College Subject	Jhansi	Banda	Jaloun	Hamirpur	Lalitpur	Mahoba	Karvi	Total
F	91	37	39	32	15	12	04	230
Male								
P	78.45	74	79.59	78.05	88.24	100	100	79.58
F	25	13	10	09	02	-	-	59
Female								
P	21.55	26	20.41	21.95	11.76	-	-	20.42
Total	116	50	49	41	17	12	04	

The above table gives the sex wise number of teachers in different districts of Bundelkhand region. The total number of male teachers in Jhansi district is 91 (78.45%) where as Female teachers are 25 (21.55%). The number of male teachers in Banda district, Jalaun, Hamirpur, Lalitpur, Mahoba & Karvi are 37 (74%), 39 (79.59), 32 (78.05%) 15 (88.24%), 12 (100%) & 4 (100%) respectively where as the number of female teachers in these districts are 13 (26%), 10 (20.41%) 09 (21.95%) 02 (11.76%) respectively but there is no female teachers in Mahoba and Karvi district. In a sample of 289 teachers there are 230 male teachers and 59 female teachers in all the seven districts of Bundelkhand region.

Table – 23

Age wise distribution of teachers in different District

College Subject	Jhansi	Banda	Jalaun	Hamirpur	Lalitpur	Mahoba	Karvi	Total
Below -35	F 41	12	07	08	07	01	-	76
	P 35.34	24	14.29	19.51	41.18	8.33		26.30
36 - 45	F 29	16	15	15	03	08	01	87
	P 25	32	30.61	36.59	17.65	66.67	25	30.10
46 - 55	F 35	15	17	12	06	03	02	90
	P 30.17	30	34.69	29.27	35.29	25	50	31.14
56 - Above	F 11	07	10	06	01	-	01	36
	P 9.48	14	20.41	14.63	5.88	-	25	12.46
Total	116	50	49	41	17	12	04	

The above table gives the Age-wise break of number of teachers in different districts of Bundelkhand region. The number of teachers in Jhansi district below – 35 are 41 (35.34%) 36-45 are 29 (25%), 46-55 are 35 (30.17%) 56 – Above are 11 (9.48%). The number of teachers in Banda district in the college group below 35, 36-45, 46-55, 56- Above are 12 (24%), 16 (32%) 15 (30%) and 07 (14%) respectively. In a sample of 289 teachers, 76 teachers are in age group below – 35, 87 teachers in the age group 36-45, 90 teachers are in the age group 46-55 and 36 (12.46%) teachers in the age group 56 /Above.

2. Visit to the Library

Table 24

Frequency of Visit to Library

Frequency	Total	Percentage
Daily	81	28.03
More than one a week	32	11.07
Once a week	42	14.53
Fortnightly	05	1.73
Once a month	06	2.08
When there is need	119	41.18
Rarely	04	1.38

The above table gives number of teachers who visit library daily, more than once a week, once a week, Fortnightly, once a month when there is need and rarely. In a sample of 289 teachers we see that the number of teachers who visit library daily are 81 (28.03%), more than once a week are 32 (11.07%), once a week are 42 (14.53%) fortnightly are 05 (1.73%) once a month are 06 (2.08%), when there is need are 119 (41.81%) and rarely are 04 (1.38%). The table shows that the number of teachers who visit the library when there is need is maximum that is 119 (41.18%) and rarely visit the library is minimum that is 04 (1.38%).

Table – 25
Summary of Chi square test
Qualification X Frequency of visit to the Library

Qualification	Visit of the Library							Total	Chi Square	df	P
	1	2	3	4	5	6	7				
Ph.D.	37	21	30	02	05	68	03	166	11.58	6	NS
None Ph.D.	44	11	12	03	01	51	01	123			
Total	81	32	42	05	06	119	04	289			

Tabulated value $\chi^2_6 (0.05) = 12.592$

Above table reveals that the χ^2 value of Qualification x visit of library is 11.58. The degrees of freedom being 6. The tabulated value of $\chi^2_6 (0.05)$ is 12.592. As calculated value of χ^2 (Chi-Square) is less than the tabulated value of χ^2 for 6 df at 5% level of significance, it is not significant at $P=0.05$.

Table – 26
Summary of Chi Square test
Age X Frequency of visit to the Library

Age	Frequency of visit of the Library							Total	Chi Square	df	P
	1	2	3	4	5	6	7				
Below-35	39	06	07	-	01	22	01	76	55.153	18	Highly Significant
36 – 45	28	16	09	02	02	31	-	88			
46 – 55	10	09	18	02	02	47	02	90			
56- above	04	01	08	01	01	19	01	35			
Total	81	32	42	05	06	119	04	289			

Tabulated value $\chi^2_{18} (0.05) = 28.869$

Above table reveals that the χ^2 value of Age X Frequency of visit to library is 55.58. The degrees of freedom being 18. The tabulated value of χ^2 for 18df at 5% level of significance is 28.869. Since the calculated value of χ^2 is much greater than the tabulated value of χ^2 , P is highly significant for $P=0.05$.

3. *In case not using the Library Frequently*

Table – 27

<i>Case</i>	<i>Total</i>	<i>Percentage</i>
1. Long Distance for Residence	17	5.88
2. Long Distance from Place of work	8	2.77
3. Shortage of time	39	13.49
4. Unhelpful attitude of staff	25	8.65
5. Non availability of reading material of your interest	107	37.02
6. Opening hours not suitable	23	7.96
7. Laziness	7	2.42
8. If any other reasons please specify	63	21.80

Above table gives the no. of teachers not using the library so frequently due to various reasons like long distance from residence and from place of work due to shortage of time, due to unhelpful attitude of staff, due to the unavailability of reading material and other reasons like time hours not suitable of laziness etc. The total no. of teachers who are not using library due to long distance from residence is 17 (5.88) and due to long distance from place of work

is 8 (2.7%) the maximum no of teachers who are not using library material due to the non-availability of the material of interest is 107 (37.0%) and due to other reasons is 63 (21.8%). The case of laziness is the least no of teachers not using the library and this is 7 (2.42%). The no of teachers not using the library due to shortage of time, unhelpful attitude of staff and opening hours not suitable is 39 (13.49%), 25 (8.65%) and 23 (7.96%) respectively.

Table – 28

Summary of the Chi square test

Qualification X Frequency of non visit to the Library

Qualification	In not visit Library								Total	Chi Square	df	P
	1	2	3	4	5	6	7	8				
Ph.D.	7	6	23	9	71	16	2	28	165	17.31	7	Sig.
None Ph.D.	10	2	46	16	36	7	2	35	124			
Total	17	8	39	25	107	23	7	63	289			

Tabulated value $\chi^2_{7(0.05)} = 14.067$

Above table gives the analysis of χ^2 test between qualifications and the different cases of not visiting the library. The calculated value of χ^2 is 17.31 and the degree of freedom is 7. The tabulated of value of χ^2 degrees of freedom at 5% level of

significance is 14.067 since the calculated value of χ^2 is greater than tabulated value of χ^2 therefore it is significant at 5% level of significance $P=0.05$.

Table – 29

Summary of the Chi square test

Age X Frequency of non visit to the Library

Qualification	In not visit Library								Total	Chi Square	df	P
	1	2	3	4	5	6	7	8				
Below – 35	8	4	13	7	18	2	2	25	79	34.406	18	Sig.
36 – 45	4	1	7	7	36	8	1	18	82			
46 – 55	4	2	15	8	37	12	1	14	93			
56 – Above	1	1	4	3	16	1	3	6	35			
Total	17	8	39	25	107	23	7	63	289			

Tabulated value $\chi^2_{18} (0.05) = 28.869$.

Above table gives the χ^2 test value between age group and different cases of not visiting the library. The calculated value of χ^2 for 18 degree of freedom is 34.41, whereas the tabulated value of χ^2 at 5% level of significance is 28.87 at 18 degree of freedom. Since the calculated value is greater than tabulated value of χ^2 , therefore it is significant at $P= 0.05$

4. *Time to generally visit the library*

Table – 30

Time	User	
	Frequency	Percentage
10 – 12 Noon	45	15.57
12 – 2 p.m.	82	28.37
2 – 4 p.m.	120	41.52
4 – 6 p.m.	32	11.07
6 – 8 p.m.	10	3.46

The above table gives the distribution of there of no. of teachers who generally visit the library between 10 to 12 is 45 (15.57%) and no of teachers who visited the library between 12 to 2 is 82 (28.37%). The max no of teachers who visited the library during 2 to 4 p.m. is 120 (41.52). Number of teachers who generally visit during 4 to 6 p.m. and 6 to 8 p.m. is 32 (11.06%) and 10 (3.46%) respectively.

Table – 31
Summary of the Chi square test
Qualification X Time generally visit to the Library

Qualification	Time generally visit the library					Total	Chi square	df	P
	1	2	3	4	5				
Ph.D.	24	44	78	15	4	165	6.31	4	N.S.
Non Ph.D.	21	38	42	17	6	124			
Total	45	82	120	32	10	289			

Tabulated value $\chi^2_4 (0.05) = 9.488$

The above table uses χ^2 test between qualifications and time to generally visit the library. Calculated value of χ^2 between qualification and time is 6.31 and the degree of freedom is 4. The tabulated value of χ^2 for degrees of freedom 5% level of significance is 9.48% since the calculated value is less than the tabulated value of χ^2 , it is not significant for $P=0.05$.

Table – 32
Summary of the Chi square test
Age X Time generally visit to the Library

Qualification	Time generally visit to the library					Total	Chi square	df	P
	1	2	3	4	5				
Above – 35	15	21	23	11	5	75	14.04	12	N.S.
36 – 45	11	28	37	9	3	88			
46 – 55	15	26	41	9	-	91			
56 – Above	4	7	19	3	2	35			
Total	45	82	120	32	10	289			

Tabulated value $\chi^2_{12} (0.051) = 21.026$

The above table reveals the χ^2 test between age group and time to generally visit the library χ^2 value for 12 degree of freedom between age group and time as computed from the data is 14.04 whereas the tabulated value of χ^2 for 12⁰ freedom at 5% level of significance is 21.26. Since the calculated value of χ^2 is less than the tabulated value of χ^2 therefore it is accepted that it is not significant for $P=0.05$.

5. *Time spend in the library*

Table – 33

Time	Frequency	Percentage
Up to 10 minute	10	3.46
11 – 20 Minute	23	7.96
20 – 30 Minute	77	26.64
30 – 60 Minute	96	33.22
More than one hour	83	28.72

The above table gives the distribution of the no. of teachers who spend their time in the library. The no. of teachers who spend time between 30-60 min. in the library is max. The no of teachers who spend time between 30 to 60 min. is 96 (33.22%). The no of

teachers who spend time between 1 to 10 min is the least in frequency distribution table and the number is 10 (3.46%). The no of teachers who spend time between 11 to 20 and 20 to 30 min is 23 (7.96%) and 77 (26.64%) respectively finally, the no of teachers who spend more than one hour in the library from different districts of Bundelkhand Region is 83 (28.73).

Table – 34

Summary of the Chi square test
Qualification X Time generally spend on visit to the Library

Qualification	Time spend visit the library					Total	Chi square	Df	P
	1	2	3	4	5				
Ph.D.	4	10	56	52	43	165	11.77	4	Sig.
Non Ph.D.	6	13	21	44	40	124			
Total	10	23	77	96	83	289			

Tabulated value $\chi^2_{12} (0.05) = 9.488$

The above table reveals the χ^2 value between qualification and time spend in the library. The computed value of χ^2 from the data is 11.77 and the degree of freedom is 4. The tabulated value of χ^2 for 4 degree of freedom at 5% level of significance is 9.488 since the calculated value of χ^2 is greater than the tabulated value

of χ^2 for 4 degree of freedom at $P=.05$, therefore we conclude that the hypothesis is rejected and therefore it is significant at $P=.05$.

Table – 35

Summary of the Chi square test
Age x Time generally spend on visit to the Library

Qualification	Time spend visit the library					Total	Chi square	df	P
	1	2	3	4	5				
Below - 35	1	6	10	25	33	75	24.92	12	Sig.
36 – 45	2	9	25	25	26	87			
46 – 55	4	6	29	36	16	91			
56 – Above	3	2	13	10	8	36			
Total	10	23	77	96	83	289			

Tabulated value $\chi^2_{12} (0.05) = 21.026$

The above table reveals the χ^2 value between age group and time spend in the library, in a sample of 289 teachers from different districts of Bundelkhand region. The calculated value of χ^2 for 12 degrees of freedom from the data of given table is 24.92, whereas the tabulated value of χ^2 at 5% level of significance is 21.02. Since the calculated value is greater than the tabulated value of χ^2 the

hypothesis under consideration is rejected for $P=0.05$ hence it is not significant at $P=0.05$.

6. *Purpose of visit to the library*

Table – 36

Purpose of visit to the library

Purpose of visit		Very Frequently	Frequently	Some time	Rarely	Never
To get books issued	F	126	115	44	4	-
	P	43.6	39.79	15.22	1.38	-
To use periodicals	F	103	111	56	12	7
	P	35.64	38.41	19.38	4.15	2.42
To use reference materials	F	67	96	101	23	2
	P	23.18	33.22	34.95	7.96	9.34
To Read Newspapers/ magazines	F	29	36	109	88	27
	P	10.03	12.46	37.12	30.45	9.34
To use Audio-visual material	F	2	7	16	67	197
	P	0.69	2.42	5.54	23.18	68.17
To browse periodical/books	F	53	103	78	31	24
	P	18.34	35.64	26.99	10.73	8.30

The above table gives the distribution of number of teachers who visited the library very frequently, frequently, sometimes, rarely and different purpose of visit, for which the different teachers of Bundelkhand region visit the library with their frequency of visit.

(a) To get books issued:

The number of respondents who visit the library very frequently to get the books issued is 126 (43.6%), whereas the number of respondents who visit the library frequently for this purpose is 115 (39.79%), whereas the number of respondents who visit the library sometimes to get books issued is 44 (15.2%) and 4 (1.38%) respondents visit the library rarely to get the books issued. There is no respondent who never visited the library to get the books issued.

(b) To use periodicals:

The total number of respondents who visit the library very frequently to use the periodicals is 103 (35.64%), 111 (38.4%) respondents visit the library frequently to use periodicals, whereas 56 (19.38%) and 12 (4.15%) visit the library sometimes and rarely respectively to use the periodicals. The number of respondents who never visit the library to use periodicals is 7 (2.42%).

(c) To use reference materials:

67(23.18%) respondents visit the library to use reference material very frequently, whereas 111 (38.4%) respondents frequently visit the library to use reference material. The number of respondents who visit the library sometimes to use reference material is 101 (34.5%). The number of respondents who rarely visit the library to use reference material is 23 (7.96%) and number of respondents who never visit library for this purpose is 2 (0.69).

(d) *To read Newspapers/Magazines:*

29 (10.03%) respondents visit the library very frequently to read newspaper and magazine. 36 (24.6%) respondents visit the library frequently for the same. The number of respondents who visit the library sometimes to read newspaper/magazine is 16 (5.54%). The number of teachers who visit the library rarely is 88 (30.45%) whereas who never visited the library for this purpose is 27 (9.34%).

e) *To use audio visual materials:*

The percentage of respondents who visit the library rarely to use audio-visual material is 67 (23.18%). The total number of respondents who never visit the library to use audio-visual material is 197 (68.17%). In other words we conclude that very few teachers use audio-visual material. The number of respondents who visit the library very frequently to use audio-visual material is 2 (0.69%) and 7 (2.48%) respectively. Number of respondents who visit the library sometimes to use audio-visual material is 16 (5.54%).

(f) *To browse periodicals/books:*

The frequency of respondents who visit the library very frequently to browse periodicals/books is 53(18.34%) whereas who visit the library frequently for same purpose is 103 (35.64%). The number of respondents who visit the library sometimes to browse periodicals/books is 78 (26.99%), whereas who visit the library

rarely is 31 (10.73%), 24 (8.30%) never visit the library to browse periodicals/books in different districts of Bundelkhand

7. Sources of Information

Table – 37

Use of Sources of Information

Documentary Source	User		Non User	
	Frequency	Percentage	Frequency	Percentage
1. Books	275	95.16	14	4.84
2. Periodicals	197	68.17	92	31.83
3. News paper files	182	62.98	107	37.02
4. Press Cuttings	69	23.88	220	76.12
5. Deotoral Dissertation	99	34.26	190	65.74
6. Reference books	238	82.35	51	17.65
7. Documents	128	44.29	161	55.71
8. Microfilms	19	6.57	270	93.43
9. Micro fishes	13	4.5	276	95.5
10. Maps	68	23.53	221	76.47
11. Statistical Tables	128	44.29	161	55.71
12. Proceeding of conference/seminars	171	59.17	118	40.83
13. Library Acquisition list	30	10.38	259	89.62
14. Serving Article	96	33.22	193	66.78
15. Official Documents	115	39.79	174	60.21

The above table gives the frequency of distribution of different uses of sources of information in the different districts of Bundelkhand Region in a sample of 289 teachers.

(a) Books:

Table - 38

*Summary of Chi square test
Faculty x use of Books*

Use of Books			Total	Chi Square	df	P
Faculty	01	02				
Art	132	8	140	3.75	6	N.S
Science	72	5	77			
Commerce	26	1	27			
Agriculture	14	Nil	14			
Law	12	Nil	12			
Medical	10	Nil	10			
Engineering	9	Nil	9			
Total	275	14	289			

Tabulated value $\chi^2_{0.05}(6) = 12.592$

The number of teachers who use books in Bundelkhand Region is 275 (95.16%). Table 38 indicates the χ^2 value between different faculty x use of books which is equal to 3.75. The degree of freedom is 6. The tabulated value of χ^2 for 6 degree of freedom at 5% level of significance is 12.592. Since the calculated value of χ^2 is much less than the tabulated value of χ^2 it is not significant at $P=0.05$. It may be noted from the table that Arts, Science, Commerce teachers have made use of books more frequently as compared to Agricultural, Law, Medical and Engineering.

(b) Periodicals:

Table - 39

*Summary of Chi square test
Faculty x use of Periodical*

Use of Periodicals			Total	Chi Square	df	P
Faculty	01	02				
Art	79	61	140	18.94	6	Significant
Science	60	17	77			
Commerce	20	7	27			
Agriculture	12	2	14			
Law	9	3	12			
Medical	9	1	10			
Engineering	8	1	9			
Total	197	92	289			

Tabulated value $\chi^2_6 (0.05) = 12.592$

197 (68.71) respondents showed that they use periodicals whereas 92 (31.83%) do not use periodicals. In table 39 χ^2 value has been computed between different faculty like Arts, Science, Commerce etc. and use of periodicals. The computed value of χ^2 from the data of the table is 18.94 and the degree of freedom is 6. The tabulated value of χ^2 for 6 degrees of freedom at 5% level of significance is 12.592. Since the calculated value of χ^2 is greater than the tabulated value of χ^2 , the hypothesis is rejected and we conclude that it is significant for $P=0.05$.

(c) Newspaper Files:

Table - 40

*Summary of Chi square test
Faculty x use of Newspaper Files*

Use of Newspaper Files			Total	Chi Square	df	P
Faculty	01	02				
Art	87	53	140	9.69	6	N.S
Science	54	23	77			
Commerce	16	11	27			
Agriculture	9	5	14			
Law	9	3	12			
Medical	5	5	10			
Engineering	2	7	9			
Total	182	107	289			

Tabulated value $\chi^2_{(0.05)} = 12.592$

The number of respondents who use newspaper files is 182 (62.98%) and who do not use newspaper files is 107 (27.02%). In table 40, we compute χ^2 value between different faculty use of newspaper files. The calculated value of X^2 for 6 degrees of freedom is 9.69. The tabulated value of χ^2 for 6 degrees of freedom at 5% level of significance is 12.592 since calculated value of χ^2 for 6 degrees of freedom at 5% level of significance is 12.59. Since calculated value of χ^2 is less than the tabulated value of χ^2 we conclude that the hypothesis is accepted and it is not significant at $p = 0.05$.

(d) Press Cuttings :

Table - 41

*Summary of Chi square test
Faculty x use of Press Cutting*

Use of Press Cutting			Total	Chi Square	df	P
Faculty	01	02				
Art	23	117	140	17.026	6	Significant
Science	19	58	77			
Commerce	11	16	27			
Agriculture	5	9	14			
Law	5	7	12			
Medical	1	9	10			
Engineering	5	4	9			
Total	69	220	289			

Tabulated value $\chi^2_{0.05}$ (0.05) = 12.592

The no of respondents who use press cuttings in different districts is 69 (23.88%) whereas who do not use press cutting is 220 (76.12%). In table 41, we compute χ^2 value between faculty and use of press cuttings. The calculated value of χ^2 is 17.03 and the degree of freedom is 6. The tabulated value of χ^2 at 6 df for 5% level of significance is 12.592. Since the calculated value of χ^2 is much greater than tabulated value of χ^2 at 5% level of significance we conclude that the hypothesis is rejected. It is highly significant for $P = 0.05$.

(e) Doctoral Dissertation:

Table - 42

*Summary of Chi square test
Faculty x use of Doctoral Dissertation*

Use of Doctoral Dissertation			Total	Chi Square	df	P
Faculty	01	02				
Art	38	102	140	13.74	6	Significant
Science	38	39	77			
Commerce	09	18	27			
Agriculture	4	10	14			
Law	5	7	12			
Medical	4	6	10			
Engineering	1	8	9			
Total	99	190	289			

Tabulated value $\chi^2_6(0.05) = 12.592$

The number of respondents who use doctoral dissertation is 99 (34.26%) whereas who do not uses doctoral dissertation is 190(65.5%). In table 42 we compute χ^2 value between different faculty and use of doctoral dissertation. The χ^2 value is 13.74 for 6 degree of freedom and the tabulated value of χ^2 for 6 degrees of freedom at 5% level of significance is 12.592. Since calculated value of χ^2 is greater than tabulated value we reject the hypothesis and conclude that is significant at $p=0.05$.

(f) Reference Books:

Table - 43

*Summary of Chi square test
Faculty x use of Reference Books*

Use of Reference Books			Total	Chi Square	df	P
Faculty	01	02				
Art	109	31	140	8.16	6	N.S
Science	67	10	77			
Commerce	23	4	27			
Agriculture	12	2	14			
Law	11	01	12			
Medical	7	3	10			
Engineering	9	-	9			
Total	238	51	289			

Tabulated value $\chi^2_6 (0.05) = 12.592$

The number of respondents who use reference books is 238 (82.35%) whereas who do not use reference books is 51 (17.65%). In table 43, we compute the χ^2 value between different faculty and use of reference books. The χ^2 value between the disciplines and use of reference books is 8.16. The degree of freedom is 6. The tabulated value of χ^2 for 6 df at 5% level of significance is 12.592. Since calculated value of χ^2 is less than the tabulated value of χ^2 we conclude that the hypothesis is accepted and it is not significant for $p=0.05$.

(g) Documents:

Table - 44

Summary of Chi square test
Faculty x use of Documents

Use of Documents			Total	Chi Square	df	P
Faculty	01	02				
Art	68	72	140	20.94	6	Significant
Science	36	41	77			
Commerce	5	22	27			
Agriculture	6	8	14			
Law	4	8	12			
Medical	1	9	10			
Engineering	8	1	9			
Total	128	161	289			

Tabulated value $\chi^2_6 (0.05) = 12.592$

The table 37 gives the no of respondents who use documents is 128 i.e. (44.29%) whereas who do not use documents is 161 (55.71%). In table 44, the χ^2 value has been computed between different faculty and use of documents. The χ^2 value is 20.94 and the df is 6. The tabulated value of X^2 for 6DF at 5% level of significance is 12.592. Since the calculated value of χ^2 is much greater than tabulated value of χ^2 , we conclude that the hypothesis is rejected. It is significant at $p = 0.05$.

(h) Microfilms:

Table - 45

*Summary of Chi square test
Faculty x use of Microfilms*

Use of Microfilms			Total	Chi Square	df	P
Faculty	01	02				
Art	8	132	140	2.84	6	N S.
Science	7	70	77			
Commerce	1	26	27			
Agriculture	-	14	14			
Law	1	11	12			
Medical	1	9	10			
Engineering	1	8	9			
Total	19	270	289			

Tabulated value $\chi^2_6 (0.05) = 12.592$

The table 37 indicates the number of respondents who use microfilms is 19 (6.57%) and who do not use microfilms is 270 (93.43%).

In above table 45 we compute the (chi-square) χ^2 value between different faculty and use of microfilms. The χ^2 value for 6 degrees of freedom is 2.84 computed from the data. The tabulated value of χ^2 for 6 degree of freedom at 5% level of significance is 12.592. Since calculated value of χ^2 is much less than tabulated value of $\chi^2_6 (0.05)$, therefore we conclude that the hypothesis is accepted. Hence it is not significant at $p = 0.05$.

(i) Microfisches:

Table - 46

*Summary of Chi square test
Faculty x use of Microfisches*

Use of Microfisches			Total	Chi Square	df	P
Faculty	01	02				
Art	6	134	140	3.61	6	N.S.
Science	3	74	77			
Commerce	-	27	27			
Agriculture	1	13	14			
Law	1	11	12			
Medical	1	9	10			
Engineering	1	8	9			
Total	13	276	289			

Tabulated value $\chi^2_6(0.05) = 12.592$

The table 37 gives number of respondents who use microfisches is 13 (4.5%) whereas who do not use microfisches is 276 (95.50%). It is mentioned in the table 46 the χ^2 value of faculty x use of microfisches is 3.61. The degree of freedom are 6. the tabulated value of $\chi^2_6(0.05)$ is 12.592. Since calculated value of χ^2 from the given data is much less than tabulated value of $\chi^2_6(0.05)$. Therefore we conclude that the hypothesis is accepted. It is not significant at $p = 0.05$.

(j) Maps:

Table - 47

*Summary of Chi square test
Faculty x use of Maps*

Use of Maps			Total	Chi Square	df	P
Faculty	01	02				
Art	24	116	140	10.93	6	N S
Science	21	56	77			
Commerce	10	17	27			
Agriculture	6	8	14			
Law	4	8	12			
Medical	1	9	10			
Engineering	2	7	9			
Total	68	221	289			

Tabulated value $\chi^2_6(0.05) = 12.592$

The table 37 gives number of respondents who use maps is 68 (23.53%) and who do not use maps is 221 (76.47%). An examination of results presented in table 47 reveals that the χ^2 value of faculty x use of maps is 10.93. The degree of freedom are 6. The tabulated value of χ^2 for 6 degree of freedom at 5% level of significance is 12.592 since calculated value of χ^2 is less than the tabulated value of χ^2 (0.05). Therefore we conclude that the hypothesis is accepted. It is not significant (NS) for $p = 0.05$.

(k) Statistical Tables:

Table - 48

*Summary of Chi square test
Faculty x use of Statistical table*

Use of Statistical Tables			Total	Chi Square	df	P
Faculty	01	02				
Art	43	97	140	40.06	6	Highly Significant
Science	46	31	77			
Commerce	19	8	27			
Agriculture	5	9	14			
Law	4	8	12			
Medical	2	8	10			
Engineering	9	-	9			
Total	128	161	289			

Tabulated value $\chi^2_6(0.05) = 12.592$

From table 37 we see that 128 (44.29%) respondents use statistical tables whereas 161 (55.71%) do not use tables whereas 161 (55.71%) do not use statistical tables. It may be noted from table 48 that the χ^2 value of faculty x use of statistical table is 40.06. The d.f. are 6. The tabulated value of $\chi^2_6(0.05)$ is 12.592. Since the calculated value of χ^2 is much greater than tabulated value of $\chi^2_6(0.05)$. Therefore we conclude that the hypothesis is rejected. It is highly significant at $p = 0.05$.

(I) Use of Proceedings of Conference/Seminars:

Table - 49

*Summary of Chi square test
Faculty x use of Proceedings of conference/seminars*

Use of Proceedings of Conference/ Seminars			Total	Chi Square	df	P
Faculty	01	02				
Art	78	62	140	17.08	6	Significant
Science	57	20	77			
Commerce	13	14	27			
Agriculture	8	6	14			
Law	6	4	12			
Medical	2	8	10			
Engineering	7	2	9			
Total	171	118	289			

Tabulated value $\chi^2_{6(0.05)} = 12.592$

The table 37 gives number of respondents who use Proceedings of Conference/Seminars is 171 (59.17%) and who do not use Proceedings of Conference/Seminars is 118 (40.83%). In table 49 the χ^2 value of faculty x use of Proceedings of Conference/Seminars is 17.08. The degree of freedom are 6. The tabulated value of χ^2 for 6 degree of freedom at 5% level of significance is 12.592. Since calculated value of χ^2 is greater than tabulated value of χ^2 at 5% level of significance. Therefore the hypothesis is rejected. It is significant at $p = 0.05$.

(m) Library Acquisition list:

Table - 50

*Summary of Chi square test
Faculty x use of Library Acquisition list*

Use of Library Acquisition List			Total	Chi Square	df	P
Faculty	01	02				
Art	13	127	140	25.08	6	Highly Significant
Science	8	69	77			
Commerce	1	26	27			
Agriculture	1	13	14			
Law	6	6	12			
Medical	1	9	10			
Engineering	-	9	9			
Total	30	259	289			

Tabulated value $\chi^2_6(0.05) = 12.592$

The table 37 gives the number of respondents who use library acquisition list is 30 (10.38%) whereas who do not use library acquisition list is 259 (89.62%). In table 50 the χ^2 value between different faculty and use of library acquisition list is 25.08. The degree of freedom are 6. The tabulated value of χ^2 for 6 degree of freedom at 5% level of significance is 12.592. Since calculated value of χ^2 is much greater than tabulated value of $\chi^2_6(0.05)$. Therefore we conclude that the hypothesis is rejected. It is highly significant at $p = 0.05$.

(n) Surveying Article:

Table - 51

*Summary of Chi square test
Faculty x use of Surveying Article*

Use of Surveying Article			Total	Chi Square	df	P
Faculty	01	02				
Art	42	198	140	21.68	6	Significant
Science	23	54	77			
Commerce	7	20	27			
Agriculture	9	5	14			
Law	7	5	12			
Medical	1	9	10			
Engineering	7	2	9			
Total	96	193	289			

Tabulated value $\chi^2_6(0.05) = 12.592$

The table 37 gives the number of respondents who use survey articles is 96 (33.22%) and who do not use survey articles is 193 (66.78%). In table 51 the χ^2 value of faculty x use of surveying article is 21.68. The degree of freedom is 6. The tabulated value of χ^2 for 6 degree of freedom at 5% level of significance is 12.592. Since calculated value of χ^2 is greater than tabulated value of χ^2 . Therefore the hypothesis is rejected. It is significant at $p = 0.05$.

(o) Official Documents:

Table - 52

*Summary of Chi square test
Faculty x use of Official Documents*

Use of Official Documents			Total	Chi Square	df	P
Faculty	01	02				
Art	53	87	140	7.40	6	N.S.
Science	28	49	77			
Commerce	12	15	27			
Agriculture	6	8	14			
Law	7	5	12			
Medical	3	7	10			
Engineering	6	3	9			
Total	115	174	289			

Tabulated value $\chi^2_6(0.05) = 12.592$

The table 37 gives the number of respondents who use official documents are 115 (39.79%) whereas who do not use official documents is 174 (60.21%).

In table 52 the χ^2 value of faculty x official documents is 7.40. The degree of freedom is 6. The tabulated value of χ^2 for 6 degree of freedom at 5% level of significance is 12.592. Since calculated value of χ^2 is less than tabulated value of χ^2 . We accept the hypothesis. Therefore we conclude that it is not significant at $p = 0.05$.

8. Information Sources

Table – 53

Use of Information Sources

Information Sources		User			
		Frequent-ly	Some times	Occasion-ally	Never
Abstracting Journals	F	89	57	54	89
	P	30.80	19.72	18.69	30.80
Indexing Journals	F	39	38	56	156
	P	13.49	13.15	19.38	53.98
Books, Monograph, etc.	F	87	57	40	105
	P	30.1	19.72	13.84	36.33
Handbooks	F	49	56	53	131
	P	16.96	19.38	18.34	45.33
Research Reports	F	69	70	58	92
	P	23.88	24.22	20.07	31.83
Conference Proceedings	F	45	56	44	144
	P	15.57	19.38	15.22	49.83
Advance in prog- ress in Annual Review of	F	24	27	50	188
	P	8.30	9.34	17.3	65.05
Patents	F	21	18	26	224
	P	7.27	6.23	9.0	77.51
Standards	F	19	24	28	218
	P	6.57	8.30	9.69	75.43
Pre-prints/ reports received from Author	F	24	25	28	212
	P	8.30	8.65	9.69	73.36
Reference found while reading literature	F	53	40	43	153
	P	18.34	13.84	14.88	52.94
Attending lectures	F	31	32	65	161
	P	10.73	11.07	22.49	55.71
Attending conferen- ces, seminars etc.	F	53	57	65	114
	P	18.34	19.72	22.49	39.45
Conversation with experts	F	30	44	54	161
	P	10.30	15.22	18.69	55.71
Reading list prepared by your library	F	12	28	56	193
	P	4.15	9.69	19.39	66.78
Any other (pl specify)	F	12	3	24	250
	P	4.15	1.04	8.30	86.51

F = Frequency P = Percentage

(a) **Abstracting Journals:**

From table 53, 89 (30.80%) respondents use abstracting journal frequently, 57 (19.72%) respondents use abstracting journal sometimes whereas 54 (18.69%) respondents use abstracting journals occasionally. The total number of respondents who never use abstracting journals is 89 (30.80%).

Table – 54

Summary of Chi square test
Faculty x use of Abstracting Journals

Use of Abstracting Journals					Total	Chi Square	df	P
Faculty	01	02	03	04				
Art	38	29	34	39	40	31.44	18	Significant
Science	23	11	11	32	77			
Commerce	14	5	3	5	27			
Agriculture	5	2	4	3	14			
Law	3	1	1	7	12			
Medical	2	5	1	2	10			
Engineering	4	4	-	1	9			
Total	89	57	54	89	289			

Tabulated value $\chi^2_{18} (0.05) = 28.869$

In table 54 χ^2 value of faculty x use of abstracting journals is 31.44. The degree of freedom is 18. The tabulated value of χ^2 for 18 degree of freedom at 5% level of significance is 28.869. Since calculated value of χ^2 is greater than the tabulated value of χ^2 . We conclude that the hypothesis is rejected. It is significant at $p = 0.05$.

(b) Indexing Journals:

From table 53, 39 (13.49%) respondents use indexing journals frequently, 38 (13.15%) respondents use indexing journals sometimes, 56 (19.38%) respondents use indexing journals occasionally whereas the total number of respondents who never use indexing journals is 156 (53.98%).

Table - 55
Summary of Chi square test
Faculty x use of Indexing Journals

Use of Indexing Journals					Total	Chi Square	df	P
Faculty	01	02	03	04				
Art	15	25	33	67	140	40.95	18	Significant
Science	7	8	10	52	77			
Commerce	4	2	5	16	27			
Agriculture	5	2	4	3	14			
Law	6	-	2	4	12			
Medical	1	1	1	7	10			
Engineering	1	-	1	7	9			
Total	39	38	56	156	289			

Tabulated value $\chi^2_{18} (0.05) = 28.869$

In above table χ^2 value of faculty use of indexing journals is 40.95. The degree of freedom is 18. The tabulated value of χ^2 for 18 degree of freedom at 5% level of significance is 28.869. Since calculated value of χ^2 is greater than the tabulated value of χ^2 , We conclude that the hypothesis is rejected. It is significant at $p = 0.05$.

(c) Books Monographs etc.:

From table 53, 87 (30.1%) respondents use books, monographs etc. frequently, 57 (19.72%) respondents use books, monographs etc. sometimes whereas 40 (13.84%) respondents uses books, monographs etc. occasionally. The total number of respondents who never use books, monographs etc. is 105 (36.33%).

Table - 56
Summary of Chi square test
Faculty x use of Books Monographs etc.

Faculty	Use of books monographs etc.				Total	Chi Square	df	P
	01	02	03	04				
Art	37	31	19	53	140	42.12	18	Signif icant
Science	25	9	9	34	77			
Commerce	10	3	8	6	27			
Agriculture	4	3	-	7	14			
Law	7	-	3	2	12			
Medical	2	6	1	1	10			
Engineering	2	5	-	2	9			
Total	87	57	40	105	289			

Tabulated value $\chi^2_{18} (0.05) = 28.869$

In the above table χ^2 value of faculty x use of books, monographs etc. is 42.12. The degree of freedom is 18. The tabulated value of χ^2 for 18 degree of freedom at 5% level of significance is 28.869. Since calculated value of χ^2 is greater than

the tabulated value of χ^2 . We conclude that the hypothesis is rejected. It is significant at $p = 0.05$.

(d) **Handbooks:**

From table 53, 49 (16.96%) respondents use handbooks frequently, 56 (19.38%) respondents use handbooks sometimes, 53 (18.34%) respondents use handbooks occasionally, whereas the total number of respondents who never use handbooks is 131 (45.33%).

Table - 57
Summary of Chi square test
Faculty x use of Hand Books

Faculty	Use of the Hand Books				Total	Chi Square	df	P
	01	02	03	04				
Art	16	32	29	63	140	55.23	18	H.S.
Science	14	10	10	43	77			
Commerce	8	5	1	13	27			
Agriculture	5	4	2	3	14			
Law	5	1	3	3	12			
Medical	1	3	1	5	10			
Engineering	-	1	7	1	9			
Total	39	56	53	131	289			

Tabulated value $\chi^2_{18} (0.05) = 28.869$

In the above table χ^2 value of faculty x use of handbooks is 55.23. The degree of freedom is 18. The tabulated value of χ^2 for

18 degree of freedom at 5% level of significance is 28.869. Since calculated value of χ^2 is greater than the tabulated value of χ^2 . We conclude that the hypothesis is rejected. It is highly significant at $p = 0.05$.

(e) **Research Reports:**

From table 53, 69 (23.88%) respondents use research reports frequently, 70 (24.22%) respondents use research reports sometimes, 58 (20.07%) respondents use research reports occasionally, whereas the total number of respondents who never use research reports is 92 (31.83%).

Table - 58
Summary of Chi square test
Faculty x use of Research Report

Faculty	Use of the Research Report				Total	Chi Square	df	P
	01	02	03	04				
Art	29	37	28	46	140	42.90	18	Significant
Science	14	13	13	37	77			
Commerce	6	9	9	3	27			
Agriculture	5	5	1	3	14			
Law	9	-	2	1	12			
Medical	3	3	3	1	10			
Engineering	3	3	2	1	9			
Total	69	70	58	92	289			

Tabulated value $\chi^2_{18} (0.05) = 28.869$

In the above table χ^2 value of faculty x use of research reports is 42.90. The degree of freedom is 18. The tabulated value of χ^2 for 18 degree of freedom at 5% level of significance is 28.869. Since the calculated value of χ^2 is greater than the tabulated value of χ^2 . We conclude that the hypothesis is rejected. It is significant at $p = 0.05$.

(f) **Conference Proceedings:**

From table 53, 45 (15.57%) respondents use conference proceedings frequently, 56 (19.38%) respondents use conference proceedings sometimes, 44 (15.22%) respondents use conference proceedings occasionally, whereas the total number of respondents who never use conference proceedings is 144 (49.83%).

Table - 59
Summary of Chi square test
Faculty x use of Conference Proceedings

Faculty	Use of Conference Proceedings				Total	Chi Square	df	P
	01	02	03	04				
Art	18	31	18	73	140	18.05	18	N.S.
Science	12	11	10	44	77			
Commerce	6	4	6	11	27			
Agriculture	4	3	3	4	14			
Law	4	2	2	4	12			
Medical	-	2	2	6	10			
Engineering	1	3	3	2	9			
Total	45	56	44	144	289			

Tabulated value $\chi^2_{18} (0.05) = 28.869$

In the above table χ^2 value of faculty x use of conference proceedings is 18.05. The degree of freedom is 18. The tabulated value of χ^2 for 18 degree of freedom at 5% level of significance is 28.869. Since the calculated value of χ^2 is less than the tabulated value of χ^2 . We conclude that the hypothesis is accepted. It is not significant at $p = 0.05$.

(g) Advances in Progress in Annual Review of:

From table 53, 24 (8.30%) respondents use advances in progress frequently, 27 (9.34%) respondents use advances in progress sometimes, 50 (17.3%) respondents uses advances in progress occasionally, whereas the total number of respondents who never use advances in progress is 188 (66.05%).

Table - 60

Summary of Chi square test

Faculty x use of Advance in Progress in Annual Review of

Faculty	Use of Advance in Progress in Annual Review of				Total	Chi Square	df	P
	01	02	03	04				
Art	9	11	27	93	140	27.41	18	N.S.
Science	5	10	6	56	77			
Commerce	3	1	6	17	27			
Agriculture	4	2	3	5	14			
Law	1	1	4	6	12			
Medical	-	-	2	8	10			
Engineering	2	2	2	3	9			
Total	24	27	50	188	289			

Tabulated value $\chi^2_{18} (0.05) = 28.869$

In the above table χ^2 value of faculty x use of advances in progress in annual review of is 27.41. The degree of freedom is 18. The tabulated value of χ^2 for 18 degree of freedom at 5% level of significance is 28.869. Since the calculated value of χ^2 is less than the tabulated value of χ^2 . We conclude that the hypothesis is accepted. It is not significant at $p = 0.05$.

(h) Patents:

From table 53, 21 (7.27%) respondents use patents frequently, 18 (6.23%) respondents use patents sometimes, 26 (9.0%) respondents use patents occasionally, whereas the total number of respondents who never use patents is 224 (77.51%).

Table - 61
Summary of Chi square test
Faculty X use of Patents

Faculty	Use of the Patents				Total	Chi Square	df	P
	01	02	03	04				
Art	11	8	10	111	140	19.25	18	N.S.
Science	5	5	7	60	77			
Commerce	2	1	5	19	27			
Agriculture	3	3	1	3	14			
Law	-	1	2	9	12			
Medical	-	-	1	9	10			
Engineering	-	-	-	9	9			
Total	21	18	26	224	289			

Tabulated value $\chi^2_{18} (0.05) = 28.869$ N.S

In the above table χ^2 value of faculty x use of patents is 19.25. The degree of freedom is 18. The tabulated value of χ^2 for 18 degree of freedom at 5% level of significance is 28.869. Since the calculated value of χ^2 is less than the tabulated value of χ^2 . We conclude that the hypothesis is accepted. It is not significant at $p = 0.05$.

(i) **Standards:**

From table 53, 19 (6.57%) respondents use standards frequently, 24 (8.30%) respondents use standards sometimes, 28 (9.69%) respondents use standards occasionally, whereas the total number of respondents who never use standards is 218 (75.43%).

Table - 62
Summary of Chi square test
Faculty x use of the Standards

Faculty	Use of the Standards				Total	Chi Square	df	P
	01	02	03	04				
Art	8	7	13	112	140	31.26	18	Signi- ficant
Science	6	4	5	62	77			
Commerce	2	3	5	17	27			
Agriculture	3	3	1	7	14			
Law	-	2	2	8	12			
Medical	-	2	2	6	10			
Engineering	-	3	-	6	9			
Total	19	24	28	218	289			

Tabulated value $\chi^2_{18} (0.05) = 28.869$

In the above table χ^2 value of faculty x use of standards is 31.26. The degree of freedom is 18. The tabulated value of χ^2 for 18 degrees of freedom at 5% level of significance is 28.869. Since the calculated value of χ^2 is greater than the tabulated value of χ^2 . We conclude that the hypothesis is rejected. It is significant at $p = 0.05$.

(j) **Pre-prints/Reports received from Authors:**

From table 53, 24 (8.30%) respondents use pre-prints/reports received from authors frequently, 25 (8.65%) respondents use pre-prints/reports received from authors sometimes, 28 (9.69%) respondents use pre-prints/reports received from authors occasionally,

Table – 63
Summary of Chi square test
Faculty x use of Pre-prints/Reports received from Authors

Faculty	Use of Pre-prints/Reports received from Authors				Total	Chi Square	df	P
	01	02	03	04				
Art	11	10	7	112	140	31.33	18	Significant
Science	7	6	6	58	77			
Commerce	3	3	5	16	27			
Agriculture	3	1	4	6	14			
Law	-	1	2	9	12			
Medical	-	2	1	7	10			
Engineering	-	2	3	4	9			
Total	24	25	28	212	289			

Tabulated value $\chi^2_{18} (0.05) = 28.869$

whereas the total number of respondents who never use pre-prints/reports received from authors is 212 (73.36%).

In the above table (table 63), χ^2 value of faculty x use of pre-prints/reports received from authors is 31.33. The degree of freedom is 18. The tabulated value of χ^2 for 18 degree of freedom at 5% level of significance is 28.869. Since the calculated value of χ^2 is greater than the tabulated value of χ^2 . We conclude that the hypothesis is rejected. It is significant at $p = 0.05$.

(k) Reference found while reading literature:

From table 53, 53 (18.34%) respondents use reference found while reading literature frequently, 40 (13.84%) respondents use reference found while reading literature sometimes, 43 (14.88%) respondent uses reference found while reading literature occasionally, while the total number of respondents who never use reference found while reading literature is 153 (52.94%).

In the table 64, χ^2 value of faculty x use of reference found while reading literature is 26.5. The degree of freedom is 18. The tabulated value of χ^2 for 18 degree of freedom at 5% level of significance is 28.869. Since the calculated value of χ^2 is less than the tabulated value of χ^2 . We conclude that the hypothesis is accepted. It is not significant at $p = 0.05$.

Table – 64

Summary of Chi square test
Faculty x use of Reference found while reading literature

Faculty	Use of Reference found while reading literature				Total	Chi Square	df	P
	01	02	03	04				
Art	31	23	14	72	140	26.5	18	N.S.
Science	12	8	9	48	77			
Commerce	4	4	9	10	27			
Agriculture	5	1	3	5	14			
Law	1	2	3	6	12			
Medical	-	1	2	7	10			
Engineering	-	1	3	5	9			
Total	53	40	43	153	289			

Tabulated value $\chi^2_{18} (0.05) = 28.869$

(I) Attending Lectures:

From table 53, 31 (10.737%) respondents use attending lectures frequently, 32 (11.07%) respondents use attending lectures sometimes, 65 (22.49%) respondents use attending lectures occasionally, whereas the total number of respondents who never use attending lectures is 161 (55.71%).

In the table 65 χ^2 value of faculty x use of attending lectures is 40.89. The degree of freedom is 18. The tabulated value of χ^2 for 18 degree of freedom at 5% level of significance is 28.869.

Since the calculated value of χ^2 is greater than the tabulated value of χ^2 . We conclude that the hypothesis is rejected. It is significant at $p = 0.05$.

Table – 65

*Summary of Chi square test
Faculty x use of Attending Lectures*

Faculty	Use of the Attending Lectures				Total	Chi Square	df	P
	01	02	03	04				
Art	13	13	33	81	140	40.89	18	Significant
Science	11	9	9	48	77			
Commerce	01	2	7	17	27			
Agriculture	5	3	2	4	14			
Law	-	2	6	4	12			
Medical	1	-	3	6	10			
Engineering	-	3	5	1	9			
Total	31	32	65	161	289			

Tabulated value $\chi^2_{18} (0.05) = 28.869$

(m) Attending Conferences, Seminars etc.:

From table 53, 53 (18.34%) respondents use attending conferences, seminars etc. frequently, 57 (19.72%) respondents attend conferences, seminars etc. sometimes, 65 (22.49%) respondents attend conferences, seminars etc. occasionally, whereas 114 (39.45) respondents never attend conferences, seminars etc.

Table – 66

Summary of Chi square test
Faculty x use of Attending Conference seminars etc.

Faculty	Use of the Attending Conference seminars etc.				Total	Chi Square	df	P
	01	02	03	04				
Art	27	24	35	54	140	39.25	18	Significant
Science	16	12	9	40	77			
Commerce	4	7	6	10	27			
Agriculture	4	3	2	5	14			
Law	1	4	7	-	12			
Medical	-	5	1	4	10			
Engineering	1	2	5	1	9			
Total	53	57	65	114	289			

Tabulated value $\chi^2_{18} (0.05) = 28.869$

In the above table χ^2 value of faculty x use of attending conferences, seminars etc. is 39.25. The degree of freedom is 18. The tabulated value of χ^2 for 18 degree of freedom at 5% level of significance is 28.869. Since the calculated value of χ^2 is greater than the tabulated value of χ^2 . We conclude that the hypothesis is rejected. It is significant at $p = 0.05$.

(n) Conversation with Experts:

From table 53, 30 (10.38%) respondents frequently use conversation with experts, 44 (15.22%) respondents use

conversation with experts sometimes, 54 (18.69%) respondents occasionally use conversation with experts, whereas 161 (55.71) respondents never use conversation with experts.

Table – 67

Summary of Chi square test
Faculty x use of Conversation with Experts

Faculty	Use of the Conversation with Experts				Total	Chi Square	df	P
	01	02	03	04				
Art	16	15	30	79	140	48.96	18	Significant
Science	8	9	9	51	77			
Commerce	1	9	2	15	27			
Agriculture	4	3	4	3	14			
Law	1	1	5	5	12			
Medical	-	1	3	6	10			
Engineering	-	6	1	2	9			
Total	30	44	54	161	289			

Tabulated value $\chi^2_{18} (0.05) = 28.869$

In the above table χ^2 value of faculty x use of conversation with experts (Peers) is 48.96. The degree of freedom is 18. The tabulated value of χ^2 for 18 degree of freedom at 5% level of significance is 28.869. Since the calculated value of χ^2 is greater than the tabulated value of χ^2 . We conclude that the hypothesis is rejected. It is significant at $p = 0.05$.

(i) Reading List Prepared by Your Library:

From table 53, 12 (4.15%) respondents use reading list prepared by library frequently, 28 (9.69%) respondents use reading list prepared by library sometimes, 56 (19.38%) respondents use reading list prepared by library occasionally, whereas 193 (66.78%) respondents never use reading list prepared by library.

Table – 68

Summary of Chi square test
Faculty x use of Reading List Prepared by Your Library

Faculty	Use of the Reading List Prepared by Your Library				Total	Chi Square	df	P
	01	02	03	04				
Art	3	10	36	91	140	56.77	18	Highly Significant
Science	4	7	8	58	77			
Commerce	1	4	-	22	27			
Agriculture	4	4	1	5	14			
Law	-	1	6	5	14			
Medical	-	2	2	6	10			
Engineering	-	-	3	6	9			
Total	12	28	56	193	289			

Tabulated value $\chi^2_{18} (0.05) = 28.869$

In the above table χ^2 value of faculty x use of reading list prepared by your library is 56.77. The degree of freedom is 18. The tabulated value of χ^2 for 18 degree of freedom at 5% level of

significance is 28.869. Since the calculated value of χ^2 is greater than the tabulated value of χ^2 . We conclude that the hypothesis is rejected. It is highly significant at $p = 0.05$.

(p) **Other Information:**

From table 53, 12 (4.15%) respondents use other information frequently, 3 (1.04%) respondents use other information sometimes, 24 (8.30%) respondents use other information occasionally, whereas 250 (86.51) respondents never use other information.

Table – 69
Summary of Chi square test
Faculty x use of Other Information

Faculty	Use of the Other Information				Total	Chi Square	df	P
	01	02	03	04				
Art	7	-	14	119	140	30.63	18	Significant
Science	2	-	4	71	77			
Commerce	1	1	-	25	27			
Agriculture	2	-	3	9	14			
Law	-	1	3	8	12			
Medical	-	1	-	9	10			
Engineering	-	-	-	9	9			
Total	12	3	24	250	289			

Tabulated value $\chi^2_{18} (0.05) = 28.869$

In the above table χ^2 value of faculty x use of other information is 30.63. The degree of freedom is 18. The tabulated value of χ^2 for 18 degree of freedom at 5% level of significance is 28.869. Since the calculated value of χ^2 is greater than the tabulated value of χ^2 . We conclude that the hypothesis is rejected. It is significant at $p = 0.05$.

9. Keeping Update

Table - 70

Able to keep update you feel	Frequency	Percentage
1) Very Great Extent	42	14.53
2) Great Extent	82	28.37
3) Some Extent	126	43.60
4) Little Extent	27	9.34
5) Not at all	12	4.15

The table – 70 gives the number of teachers who respond to be and able to keep update to very great extent of different district of Bundelkhand region is 42 (14.53%).

82 (28.37%) respondents will be able to keep update to great extent. The number of respondents who will be able to update to some extent is 126 (43.60%) 27 (9.34%) respondents will be able to keep update to little extent. There are 12 respondents who will be able to keep update not at all.

Table 71

***Summary of Chi Square test
Qualification x Able To Keep Update***

Qualification	Able to keep update					Total	Chi Square	df	P
	1	2	3	4	5				
Ph.D	24	50	66	17	8	165	2.48	4	NS
Non Ph.D	68	32	60	10	4	124			
Total	42	82	126	27	12	289			

Tabulated value $\chi^2_4 (0.05) = 9.488$

The above table indicates the χ^2 value qualifications x update in yours field is 2.48. The degrees of freedom is 4. The tabulated value of χ^2 for 4 df at 5% level of significances is 9.488. Calculated value of χ^2 is less then the tabulated value of χ^2 we conclude that the hypothesis is accepted. It is not significant at $p=0.05$.

Table - 72

***Summary of Chi Square test
Age x Able To Keep Update***

Age	Able to keep update					Total	Chi Square	Df	P
	1	2	3	4	5				
Below - 35	11	21	37	7	-	76	8.06	12	NS
36 - 45	13	25	35	10	4	87			
46 - 55	12	28	39	6	5	90			
Above - 56	6	8	15	4	3	36			
Total	42	82	126	27	12	289			

Tabulated value $\chi^2_{12} (0.05) = 21.026$

In the table – 72 indicates the χ^2 value age x able to keep update is 8.06 the degrees of freedom is 12. The tabulated value of χ^2 for df at 5% level of significance is 21.026. Since calculated value of χ^2 is less than the tabulated value of χ^2 we conclude that the hypothesis is accepted. It is not significant at $p=0.05$.

(10) Use of Library Service –

The results regarding use of library services provided by different colleagues of Bundelkhand University library are presented in table 73. The description of Results is as under.

Table - 73

Use of Library Service

Services		User		Non User	
		Frequency	%age	Frequency	%age
1.	Circulation	132	45.67	157	54.33
2.	Reference	141	48.79	158	51.12
3.	Indenting	39	13.49	250	86.51
4.	Abstracting	31	10.73	258	89.27
5.	Photo copying	51	17.65	238	82.35
6.	Current awareness	85	29.41	204	70.59

(a) Circulation Service –

In the above table 73, the number of respondent teacher in different districts in Bundelkhand University Jhansi, who use circulations service of library is 132 (45.67%), but 157 (54.32%) respondent do not use circulation service provided by their respective college library.

Table - 74

***Summary Of Chi Square Test
District x Use Of Circulation Service***

Use of circulation service						
District	1	2	Total	Chi Square	Df	P
Jhansi	51	65	116	41.79	6	Highly Significance
Banda	18	32	50			
Jalaun	11	38	49			
Hamirpur	22	19	41			
Lalitpur	15	2	17			
Mahoba	12	-	12			
Karvi	3	1	4			
Total	132	157	289			

Tabulated value $\chi^2_6 (0.05) = 12.592$

Table 74 indicates the χ^2 value of district x use of circulation service is 41.79. The degree of freedom is 6. The tabulated value of χ^2 for 6 degree freedom at 5% level of highly significance 12.592. Since calculated value of χ^2 is greater than tabulated value of χ^2 we conclude that the hypothesis is rejected. It is highly significant at $p=0.05$.

(b) Reference Service –

In the above table 73, the number of respondent teacher in different districts in Bundelkhand University Jhansi, who use reference service of library is 141 (48.79%), but 158 (51.21%) respondents do not use reference service provided by their respective college library.

Table - 75

*Summary of Chi Square test
District x Use Of Reference Service*

Use of reference service						
District	1	2	Total	Chi Square	df	P
Jhansi	42	74	116	33.39	6	H.S.
Banda	27	23	50			
Jalaun	19	30	49			
Hamirpur	25	16	41			
Lalitpur	12	5	17			
Mahoba	12	-	12			
Karvi	4	-	4			
Total	141	148	289			

Tabulated value $\chi^2_6 (0.05) = 12.592$

Table 75 indicates the χ^2 value of district x use of reference service is 33.39. The degree of freedom is 6. The tabulated value of χ^2 for 6 degree freedom at 5% level of highly significance is 12.592. Since the calculated value of χ^2 is greater than tabulated value of χ^2 we conclude that the hypothesis is rejected. It is highly significant at $p=0.05$.

(c) Indexing Service –

In the above table 73, the number of respondent teachers in different districts in Bundelkhand University Jhansi, who use Indexing service is 39 (13.49%), but 250 (86.51%) respondents do

not use Indexing service provided by their respective college library.

Table - 76

Summary Of Chi Square Test
District x Use of Indexing Service

Use of Indexing service				Chi Square	df	P
District	1	2	Total			
Jhansi	9	107	116	10.19	6	NS
Banda	6	44	50			
Jalaun	11	38	49			
Hamirpur	6	35	41			
Lalitpur	2	15	17			
Mahoba	4	8	12			
Karvi	1	3	4			
Total	39	250	289			

Tabulated value $\chi^2_6 (0.05) = 12.592$

Table 76 indicates the χ^2 value of district x use of Indexing service is 10.19. The degree of freedom is 6. The tabulated value of χ^2 for 6 degree freedom at 5% level of highly significance 12.592. Since the calculated value of χ^2 is less than tabulated value of χ^2 we conclude that the hypothesis is accepted. It is highly significant at $p=0.05$.

(d) Abstracting Service –

In the above table 73, the number of respondent teachers in different districts in Bundelkhand University Jhansi, who use Abstracting service is 31 (10.73%), but 258 (89.27%) respondents do not use the Abstracting service provided by their respective college library.

Table - 77

Summary of Chi Square test
District x Use Of Abstracting Service

Use of abstracting service						
District	1	2	Total	Chi Square	df	P
Jhansi	12	104	116	13.62	6	Signi- ficant
Banda	6	44	50			
Jalaun	2	47	49			
Hamirpur	5	36	41			
Lalitpur	2	15	17			
Mahoba	4	8	12			
Karvi	-	4	4			
Total	31	258	289			

Tabulated value $\chi^2_6 (0.05) = 12.592$

Table 77 indicates the χ^2 value of district x use of Abstracting service is 13.62. The degree of freedom is 6. The tabulated value of χ^2 for 6 degree freedom at 5% level of highly significance 12.592. Since the calculated value of χ^2 is greater than tabulated value of χ^2 we conclude that the hypothesis is rejected. It is significant at $p=0.05$.

(e) Photocopying Service –

In the table 73, the number of respondent teachers in different districts in Bundelkhand University Jhansi, who use Photocopying service provided by their respective college library is 51 (17.65%), whereas 238 (82.35%) respondents do not use photocopying service provided by their respective college library.

Table - 78

*Summary Of Chi Square Test
District x Use Of Photo Copy Service*

Use of Photo Copy Service				Chi Square	Df	P
District	1	2	Total			
Jhansi	17	99	116	34.12	6	H.S.
Banda	10	40	50			
Jalaun	6	43	49			
Hamirpur	3	38	41			
Lalitpur	4	13	17			
Mahoba	8	4	12			
Karvi	3	1	4			
Total	51	238	289			

Tabulated value $\chi^2_6 (0.05) = 12.592$

The above table 78 indicates the χ^2 value of district x use of Photocopying service is 34.12. The degree of freedom is 6. The tabulated value of χ^2 for 6 degree freedom at 5% level of significance 12.592. Since the calculated value of χ^2 is greater than tabulated value of χ^2 we conclude that the hypothesis is rejected. It is highly significant at $p=0.05$.

(f) Current Awareness Service –

In the table 73, the number of respondent teachers in different districts in Bundelkhand University Jhansi, who use Current Awareness Service is 85 (29.41%), but 204 (70.59%) respondents do not use the current awareness services provided by their respective college library.

Table - 79
Summary Of Chi Square Test
District x Use of Current Awareness Service

Use of Current Awareness Service				Chi Square	df	P
District	1	2	Total			
Jhansi	19	97	116	38.22	6	H.S.
Banda	16	34	50			
Jalaun	12	37	49			
Hamirpur	15	26	41			
Lalitpur	13	4	17			
Mahoba	8	4	12			
Karvi	2	2	4			
Total	85	204	289			

Tabulated value $\chi^2_6 (0.05) = 12.592$

The above table 79 indicates the χ^2 value of district x use of current awareness service is 38.22. The degree of freedom is 6. The tabulated value of χ^2 for 6 degree freedom at 5% level of significance 12.592. Since the calculated value of χ^2 is greater than tabulated value of χ^2 we conclude that the hypothesis is rejected. It is highly significant at $p=0.05$.

11. Advice about Research Project from staff at different stages

Table - 80

Research Project		User		Non User	
		Frequency	%age	Frequency	%age
1.	Selection of research project	80	27.68	209	72.32
2.	Preparation of a bibliography	59	20.42	230	79.58
3.	Initiating work on it	50	17.30	239	82.70

The result regarding advise about research project from library staff at different stage where as 80 (27.68%) selection of research project, 59 (20.42%) preparation of bibliography and 50 (17.30%) Initiating work on it.

12. Usefulness Of Library Service

Table - 81

Services		Very useful	Little useful	Not useful
Circulation Services	F	111	127	51
	P	38.41	43.94	17.65
Reference Services	F	103	116	70
	P	35.64	40.14	24.22
Indexing Services	F	39	87	163
	P	13.49	30.10	56.40
Abstracting Services	F	27	43	219
	P	9.34	14.88	75.78
Photocopy Services	F	41	120	128
	P	14.19	41.52	44.29
Current Awareness Services	F	74	117	98
	P	25.61	40.48	33.91

The results regarding the opinions of various respondent teachers about the usefulness of library services in the respective college libraries of different districts of Bundelkhand University Jhansi, are presented in table 81. The description of the result is as below.

(a) *Circulation Service* –

In the table 81, the number of respondents who informed the circulation services of library to be very useful is 111 (38.41%), 127 (43.94%) respondents found the circulation service to be little useful whereas 51 (17.65%) respondents found that the circulation services were not useful at all.

Table - 82

*Summary of Chi Square test
District x Usefulness of Circulation Services*

Usefulness of circulation service				Total	Chi Square	df	P
District	1	2	3				
Jhansi	48	23	25	116	32.39	6	Significant
Banda	18	24	08	50			
Jalaun	10	31	08	49			
Hamirpur	15	20	06	41			
Lalitpur	11	04	02	17			
Mahoba	07	04	01	12			
Karvi	02	01	01	4			
Total	111	127	51	289			

Tabulated value $\chi^2_{12} (0.05) = 21.026$

In the above table 82 the χ^2 value of district x usefulness of circulation services is 33.51. The degree of freedom is 12. The tabulated value of χ^2 for 12 degree of freedom at 5% level of significance 21.026. Since the calculated value of χ^2 is greater than tabulated value of χ^2 we conclude that the hypothesis is rejected. It is significant at $p=0.05$.

In table 82, it indicates the χ^2 value of district x usefulness of circulation services is 32.39. The degree of freedom is 12 the tabulated value of χ^2 for 12 degree of freedom at 5% level of significance is 21.026. Since calculated value of χ^2 is greater than tabulated value of χ^2 . It is significant at $p = 0.05$.

(b) Reference Service

Table - 83

*Summary of Chi Square test
District x Usefulness of Reference Services*

Usefulness of reference service				Total	Chi Square	df	P
District	1	2	3				
Jhansi	38	52	26	116	16.74	12	N.S
Banda	15	27	08	50			
Jalaun	17	16	16	49			
Hamirpur	15	13	03	41			
Lalitpur	08	04	05	17			
Mahoba	08	03	01	12			
Karvi	02	01	01	4			
Total	103	116	70	289			

Tabulated value $\chi^2_{12} (0.05) = 21.026$

In the table 81, the number of respondents who found the reference services of the library to be very useful is 103 (35.64%), 116 (40.14%) respondents found the reference services to be little useful whereas 70 (24.22%) respondents informed that the reference services were not useful at all.

In the above table 83 the χ^2 value of district x usefulness of reference services is 16.74. The degree of freedom is 12. The tabulated value of χ^2 for 12 degree of freedom at 5% level of significance 21.026. Since the calculated value of χ^2 is less than the tabulated value of χ^2 we conclude that the hypothesis is accepted. It is not significant at $p=0.05$.

(c) Indexing Service –

Table - 84
Summary of Chi Square Test
District x Usefulness of Indexing Services

Usefulness of Indexing service				Total	Chi Square	df	P
District	1	2	3				
Jhansi	9	27	80	116	23.22	12	Significance
Banda	5	23	22	50			
Jalaun	9	18	22	49			
Hamirpur	10	11	20	41			
Lalitpur	02	05	10	17			
Mahoba	03	02	07	12			
Karvi	01	01	02	4			
Total	39	87	163	289			

Tabulated value $\chi^2_{12} (0.05) = 21.026$

In the table 81, the number of respondents who found the Indexing services of library to be very useful is 39 (13.49%), 87 (30.10%) respondents found the Indexing services to be little useful whereas 163 (56.40%) respondents found that the Indexing services of library were not useful at all.

In the above table 84 the χ^2 value of district x usefulness of Indexing services is 23.22. The degree of freedom is 12. The tabulated value of χ^2 for 12 degree of freedom at 5% level of significance 21.026. Since the calculated value of χ^2 is greater than tabulated value of χ^2 we conclude that the hypothesis is rejected. It is significant at $p=0.05$.

(d) Abstracting Service –

Table - 85

*Summary of Chi Square Test
District x Usefulness of Abstracting Services*

Usefulness of Abstracting Services				Total	Chi Square	df	P
District	1	2	3				
Jhansi	11	18	87	116	12.39	12	N.S
Banda	04	08	38	50			
Jalaun	02	07	40	49			
Hamirpur	04	05	32	41			
Lalitpur	02	03	12	17			
Mahoba	04	02	06	12			
Karvi	-	-	04	4			
Total	27	43	219	289			

Tabulated value $\chi^2_{12} (0.05) = 21.026$

In the table 81, the number of respondents who found the abstracting services of the library to be very useful is 27 (9.34%), 43 (14.88%) respondents found the abstracting services to be little useful whereas 219 (75.78%) respondents found that the abstracting services of library were not useful at all.

In the above table 85 the χ^2 value of district x usefulness of abstracting services is 12.39. The degree of freedom is 12. The tabulated value of χ^2 for 12 degree of freedom at 5% level of significance 21.026. Since the calculated value of χ^2 is less than the tabulated value of χ^2 we conclude that the hypothesis is accepted. It is not significant at $p=0.05$.

(e) Photocopying Services –

Table - 86

*Summary of Chi Square Test
District X Usefulness of Photocopy Services*

Usefulness of photocopy services				Total	Chi Square	df	P
District	1	2	3				
Jhansi	16	40	60	116	18.18	12	N.S.
Banda	09	23	18	50			
Jalaun	05	22	22	49			
Hamirpur	02	24	15	41			
Lalitpur	04	07	06	17			
Mahoba	03	03	06	12			
Karvi	02	01	01	04			
Total	41	120	128	289			

Tabulated value $\chi^2_{12} (0.05) = 21.026$

In the table 81, the number of respondents who informed the photocopying services of the library to be very useful is 41 (14.19%), 120 (41.52%) respondents found the photocopying services to be little useful whereas 128 (44.29%) respondents informed that the photocopying services were not useful at all.

In the above table 86 the χ^2 value of district x usefulness of photocopying services is 18.18. The degree of freedom is 12. The tabulated value of χ^2 for 12 degree of freedom at 5% level of significance 21.026. Since the calculated value of χ^2 is less than the tabulated value of χ^2 we conclude that the hypothesis is accepted. It is significant at $p=0.05$.

(f) Current Awareness Service –

Table - 87

Summary of Chi Square Test
District x Usefulness of Current Awareness Services

Usefulness of current awareness services				Total	Chi Square	df	P
District	1	2	3				
Jhansi	18	52	46	116	16.73	12	N.S.
Banda	14	20	16	50			
Jalaun	11	21	17	49			
Hamirpur	16	14	11	41			
Lalitpur	08	05	04	17			
Mahoba	05	04	03	12			
Karvi	02	01	01	04			
Total	74	117	98	289			

Tabulated value $\chi^2_{12}(0.05) = 21.026$

In the table 81, the number of respondents who found the current awareness services of the library to be very useful is 74 (25.61%), 117 (40.48%) respondents found the awareness services of the library to be little useful whereas 98 (33.91%) respondents found that the current awareness services of the library were not useful at all.

In the above table 87 the χ^2 value of district x usefulness of current awareness services is 16.73. The degree of freedom is 12. The tabulated value of χ^2 for 12 degree of freedom at 5% level of significance 21.026. Since the calculated value of χ^2 is less than the tabulated value of χ^2 we conclude that the hypothesis is accepted. It is not significant at $p=0.05$.

(13) Use of Computerized Service

In the table 88 the number of respondent teachers in different districts in Bundelkhand University Jhansi, who use computerised service is 55 (19.03%), whereas 234 (80.97%) respondents do not use computersied service. The type and rate of using computersied service has been further classified as :-

Table - 88

	User	Non-user
Frequency	55	234
Percentage	19.03	80.97

(A) Type of Computerized Service

Table – 89

Service		User	
		Frequency	%age
1.	Literature search within the Library	14	22.22
2.	Literature search through Local Network	5	7.94
3.	Literature search through National Network	16	25.40
4.	Literature search through International Network	28	44.44

In the above table 89 the result regarding the use of different types of computersied services by respondent teachers in colleges of different districts of Bundelkhand university, has been given. The description of the result is as under.

(a) Literature search within the library

In the above table 89 the no of respondent users who use literature search within the library type computersied service is 14 (22.22%).

(b) Literature search through local Network

In the above table 89 the no of respondent users who use literature search through local network type computersied service is 5 (7.94%).

(c) Literature search through national network

In the table 89 the no of respondent users who use literature search through national network type computersied service is 16 (25.40%).

(d) Literature search through International Network

In the table 89 the no of respondents users who use literature search through International network type computersied service is 28 (44.44%).

(2) E-mail Service

In the table 90 the result regarding the rate at which the respondents use electronic mail service from the library has been given. The description of the result is as under :-

Table - 90

Service use		User	
		Frequency	%age
1.	Frequently	08	14.29
2.	Some times	07	12.50
3.	Rarely	05	08.93
4.	Never	09	16.07
5.	Not available in the library	27	48.21

(a) Frequently

In the above table 90 the no of respondent users who frequently use electronic mail service from the library is 08 (14.29%).

(b) Sometimes

In the above table 90 the no of respondent users who use electronics mail service sometimes is 07 (12.5).

(c) Rarely

In the above table 90 the no of respondent who use electronic mail service rarely is 5 (8.93%).

(d) Never

In the above table 90 the no of respondent users who never use electronics mail service is 09 (16.07%).

(e) Not Available in the library

In the above table 90 the no of respondent users who find the electronic mail service not available in the library is 27 (48.21%).

(14) Recommend The Library To Acquire Publication and the Response of the Library

Table - 91

***Recommend the Library to Acquire
Publication and the Response of The Library***

Recommend the library to acquire publication & response of the Library		User	
		Frequency	%age
1.	Highly Satisfactory	26	09.00
2.	Satisfactory	94	32.52
3.	Not Satisfactory	63	21.80
4.	Poor	40	13.84
5.	Not user	66	22.84

In the table 91 the results regarding the recommendations of the respondent users of the districts of Bundelkhand university to the library to acquire publications and the consequent response of the library in different districts of Bundelkhand university is given as described under. :-

(a) **Highly Satisfactory :-**

In the table 91 the no of respondents who recommended the library to acquire publications and found the response of the library to be highly satisfactory is 26 (9.00%).

(b) **Satisfactory**

In the table 91 the no of respondents who recommended the library to acquire publications and found the response of the library to be satisfactory is 94 (32.52%).

(c) **Not Satisfactory**

In the table 91 the no of respondents who recommended the library to acquire publications and found the response of the library to be not satisfactory is 63 (21.80%).

(d) **Poor**

In the table 91 the no of respondents who recommended the library to acquire publications and found the response of the library to be poor is 66 (22.84%).

(e) Not user

In the table 91 the no of respondents who act as non-users for recommended the library to acquire publications is 66 (22.84%).

In the table (Table 92) the χ^2 value of district x acquire the publication and response of the library is 58.9. The degree of freedom is 24. The tabulated value of χ^2 for 24 df at 5% level of significance is 36.415. Since the calculated value of χ^2 is greater than the tabulated value of χ^2 , we conclude that the hypothesis is rejected. It is significant at $P=0.05$.

Table - 92

Summary Of Chi Square Test

District x Recommend the Library to Acquire Publication and Response of the Library

District	Recommend the library to acquire publication & response of the Library					Total	Chi Square	df	P
	1	2	3	4	5				
Jhansi	15	30	23	12	36	116	58.9	24	Significant
Banda	3	20	11	7	9	50			
Jalaun	4	19	16	8	2	49			
Hamirpur	3	14	7	9	8	41			
Lalitpur	1	5	-	-	11	17			
Mahoba	-	4	4	4	-	12			
Karvi	-	-	2	2	-	4			
Total	26	94	63	40	66	289			

Tabulated value $\chi^2_{24} (0.05) = 36.415$

(15) Purpose of Using Periodicals by Teachers

Table - 93

Using Periodicals	Yes		No	
	Frequency	%age	Frequency	%age
Updating Knowledge	185	64.01	104	35.99
Research	148	51.21	141	48.79
Teaching work	135	46.71	154	53.29
General Awareness	114	39.45	175	60.55

(a) *Updating Knowledge*

In the table 93 the no of respondent teachers who use periodicals for the purpose of updating knowledge is 185 (64.01%) while 104 (35.99%) respondents do not use periodicals for the purpose of updating knowledge.

Table - 94

Summary of Chi Square test
Qualification x Use of Periodical For Updating Knowledge

Use of Periodicals for updating knowledge				Chi Square	df	P
Qualification	1	2	Total			
Ph.D	102	63	165	0.80	1	NS
Non Ph.D	83	41	124			
Total	185	104	289			

Tabulated value $\chi^2_1 (0.05) = 3.841$

In the above table 94 χ^2 value of qualification x use of periodicals for updating knowledge is 0.80. The degree of freedom is 1. The tabulated value of χ^2 for 1 df at 5% level of significance is 3.841. Since the calculated value of χ^2 is less than the tabulated value of χ^2 we conclude that the hypothesis is accepted. It is not significant at $P = 0.05$.

Table - 95

***Summary Of Chi Square Test
Age x Use of Periodicals For Updating Knowledge***

Use of Periodical for updating knowledge				Chi Square	df	P
Age	1	2	Total			
Below – 35	53	23	76	2.61	3	NS
36 – 45	57	30	87			
46 – 55	55	35	70			
56 – above	20	16	36			
Total	185	104	289			

Tabulated value $\chi^2_3 (0.05) = 7.815$

In the above table 95 χ^2 value of Age x use of periodicals for updating knowledge is 2.61. The degree of freedom is 3. The tabulated value of χ^2 for 3 df at 5% level of significance is 7.815. Since the calculated value of χ^2 is less than the tabulated value of

χ^2 we conclude that the hypothesis is accepted. It is not significant at $P = 0.05$.

(b) Research

In the table 93 the no of respondent teachers who use periodicals for the purpose of research is 148 (51.21%) but 141 (48.79%) respondents do not use periodicals for the purpose of research.

Table - 96

***Summary of Chi Square Test
Qualification x Use of Periodical For Research***

Use of Periodical for research				Chi Square	df	P
Qualification	1	2	Total			
Ph.D	90	75	165	1.72	1	NS
Non Ph.D	58	66	124			
Total	148	141	289			

Tabulated value $\chi^2_{1(0.05)} = 3.841$

In the above table 96 the χ^2 value of Qualification x use of periodicals in research is 1.72. The degree of freedom is 1. The tabulated value of χ^2 for 1 df at 5% level of significance is 3.841. Since the calculated value of χ^2 is less than the tabulated value of χ^2 we conclude that the hypothesis is accepted. It is not significant at $P = 0.05$.

χ^2 we conclude that the hypothesis is accepted. It is not significant at $P = 0.05$.

(b) Research

In the table 93 the no of respondent teachers who use periodicals for the purpose of research is 148 (51.21%) but 141 (48.79%) respondents do not use periodicals for the purpose of research.

Table - 96

***Summary of Chi Square Test
Qualification x Use of Periodical For Research***

Use of Periodical for research				Chi Square	df	P
Qualification	1	2	Total			
Ph.D	90	75	165	1.72	1	NS
Non Ph.D	58	66	124			
Total	148	141	289			

Tabulated value $\chi^2_{1(0.05)} = 3.841$

In the above table 96 the χ^2 value of Qualification x use of periodicals in research is 1.72. The degree of freedom is 1. The tabulated value of χ^2 for 1 df at 5% level of significance is 3.841. Since the calculated value of χ^2 is less than the tabulated value of χ^2 we conclude that the hypothesis is accepted. It is not significant at $P = 0.05$.

Table - 97

*Summary of Chi Square Test
Age x Use of Periodicals for Research*

Use of Periodicals for research				Chi Square	df	P
Age	1	2	Total			
Below - 35	33	43	76	4.88	3	NS
36 - 45	44	43	87			
46 - 55	54	36	90			
56 - above	17	19	36			
Total	148	141	289			

Tabulated value $\chi^2_3 (0.05) = 7.815$

In the above table 97 the χ^2 value of age x use of periodicals in research is 4.88. The degree of freedom is 3. The tabulated value of χ^2 for 3 df at 5% level of significance is 7.815. Since the calculated value of χ^2 is less than the tabulated value of χ^2 we conclude that the hypothesis is accepted. It is not significant at $P = 0.05$.

(c) Teaching work

In the table 93 the no of respondent teachers who use periodicals for the purpose of teaching work is 135 (46.71%) whereas 154 (53.29%) respondents do not use periodicals for the purpose of teaching work.

Table - 98

***Summary of Chi Square Test
Qualification x Use of Periodicals for Teaching Work***

Use of Periodicals for teaching work			Chi Square	df	P
Qualification	1	2	Total		
Ph.D	78	87	165	0.43	1
Non Ph.D	57	67	124		
Total	135	154	289		

Tabulated value $\chi^2_1 (0.05) = 3.841$

In the above table 98 the χ^2 value of Qualification x use of periodicals for teaching work is 0.43. The degree of freedom is 1. The tabulated value of χ^2 for 1 df at 5% level of significance is 3.841. Since the calculated value of χ^2 is less than the tabulated value of χ^2 we conclude that the hypothesis is accepted. It is not significant at $P = 0.05$.

Table - 99

***Summary of Chi Square Test
Age X Use of Periodicals For Teaching Work***

Use of Periodicals for teaching work			Chi Square	df	P
Age	1	2	Total		
Below - 35	34	42	76	2.63	3
36 - 45	36	51	87		
46 - 55	45	45	90		
56 - above	20	16	36		
Total	135	154	289		

Tabulated value $\chi^2_3 (0.05) = 7.815$

In the above table 99 the χ^2 value of Age x use of periodicals for teaching work is 2.63. The degree of freedom is 3. The tabulated value of χ^2 for 3 df at 5% level of significance is 7.815. Since the calculated value of χ^2 is less than the tabulated value of χ^2 we conclude that the hypothesis is accepted. It is not significant at $P = 0.05$.

(d) General Awareness

In the table 93 the no of respondent teachers who use periodicals for the purpose of general awareness is 114 (39.45%) but the no of respondents who do not use periodicals for the purpose of general awareness is 175 (60.55%).

Table - 100

**Summary of Chi Square Test
Qualification x Use of Periodicals for General Awareness**

Use of Periodicals for General Awareness				Chi Square	df	P
Qualification	1	2	Total			
Ph.D	63	102	165	0.26	1	NS
Non Ph.D	51	73	124			
Total	114	175	289			

Tabulated value $\chi^2_{1(0.05)} = 3.841$

In the above table 100 the χ^2 value of Qualification x use of periodicals for general awareness is 0.26. The degree of freedom is

1. The tabulated value of χ^2 for 1 df at 5% level of significance is 3.841. Since the calculated value of χ^2 is less than the tabulated value of χ^2 we conclude that the hypothesis is accepted. It is not significant at $P = 0.05$.

Table - 101

***Summary of Chi Square test
Age x Use of Periodicals For General Awareness***

Use of Periodicals for General Awareness				Chi Square	df	P
Age	1	2	Total			
Below - 35	34	42	76	6.92	3	NS
36 - 45	26	61	87			
46 - 55	35	55	90			
56 - above	19	17	36			
Total	114	175	289			

Tabulated value $\chi^2_3 (0.05) = 7.815$

In the above table 101 the χ^2 value of Age x use of periodicals for general awareness is 6.92. The degree of freedom is 3. The tabulated value of χ^2 for 3 df at 5% level of significance is 7.815. Since the calculated value of χ^2 is less than the tabulated value of χ^2 we conclude that the hypothesis is accepted. It is not significant at $P = 0.05$.

16. *Methods Of Determining Periodicals Information*

Table - 102

Methods		Rank Priority I	Rank Priority II	Rank Priority III	Rank Priority IV	Rank Priority V	Rank Priority VI
Browsing	F	140	58	52	13	11	15
	P	48.44	20.07	17.99	4.50	3.81	5.19
Through Indexing/ abstracting periodicals	F	62	132	59	10	8	18
	P	21.45	45.67	20.42	3.46	2.77	6.23
Citations articles	F	26	53	137	45	15	13
	P	9.0	18.34	47.40	15.57	5.19	4.50
Consulting colleagues	F	5	13	21	166	61	23
	P	1.73	4.50	7.27	57.44	21.11	7.96
Consulting library staff	F	4	3	10	45	179	48
	P	1.38	1.04	3.46	15.57	61.94	16.61
Any other specify or Not reply	F	52	30	10	10	15	172
	P	17.99	10.38	3.46	3.46	5.19	59.52

The table 102 indicates the methods of determining periodicals information by the respondent teachers in different districts and their respective colleges of Bundelkhand University, Jhansi.

(a) Browsing:

In the table 102, the number of respondents who indicated first priority to Determining Periodicals Information through

browsing is 140 (48.44%), whereas 58 (20.07%) respondents indicated second priority to determining periodicals information through browsing, 52 (17.99%) respondents indicated third priority to determining periodicals information through browsing, 13 (4.50%) respondents indicated fourth priority to determining periodicals information through browsing, 11 (3.81%) respondents indicated fifth priority to determining periodicals information through browsing and 15 (5.19%) respondents indicated sixth priority to determining periodicals information through browsing.

Table – 103
Summary of Chi Square test

Faculty x Browsing

Faculty	Browsing						Total	Chi Square	df	P
	1	2	3	4	5	6				
Art	78	24	21	4	5	8	140	20.62	30	NS
Science	35	17	18	4	2	1	77			
Commerce	10	7	6	1	1	2	27			
Agriculture	6	3	2	11	-	2	14			
Law	4	3	2	1	1	1	12			
Medical	4	2	1	1	1	1	10			
Engineering	3	2	2	1	1	-	9			
Total	140	58	52	13	11	15	289			

Tabulated value $\chi^2_{30} (0.05) = 43.773$

In the above table 103, the χ^2 value of Faculty x Browsing is 20.62. The degree of freedom is 30. The tabulated value of χ^2 for 30 df at 5% level of significance is 43.773. Since the calculated value of χ^2 is less than the tabulated value of χ^2 , we conclude that the hypothesis is accepted. It is not significant at $p = 0.05$.

(b) **Through Indexing/Abstracting Periodical:**

In the table 102, 62 (21.45%) respondents indicated first priority to Determining Periodicals Information through indexing/abstracting periodicals, 132 (45.67%) respondents indicated second priority to determining periodicals information through indexing/abstracting periodicals, 59 (20.42%) respondents indicated third priority to determining periodicals information through indexing/abstracting periodicals, 10 (3.46%) respondents indicated fourth priority to determining periodicals information through indexing/abstracting periodicals, 8 (2.77%) respondents indicated fifth priority to determining periodicals information through indexing/abstracting periodicals and 18 (6.23%) respondents indicated sixth priority to determining periodicals information through indexing/abstracting periodicals.

In the following table 104, the χ^2 value of Faculty x through Indexing Abstracting Periodicals is 21.47. The degree of freedom is 30. The tabulated value of χ^2 for 30 df at 5% level of significance is 43.773. Since the calculated value of χ^2 is less than the tabulated

value of χ^2 , we conclude that the hypothesis is accepted. It is not significant at $p = 0.05$.

Table – 104

***Summary of Chi Square test
Faculty x Through Indexing/Abstracting Periodicals***

Faculty	Through Indexing/Abstracting Periodicals						Total	Chi Square	df	P
	1	2	3	4	5	6				
Art	30	70	28	43	53	6	140	21.47	30	NS
Science	18	36	15	2	2	4	77			
Commerce	5	11	7	1	1	2	27			
Agriculture	3	4	3	1	1	2	14			
Law	2	5	2	1	1	1	12			
Medical	3	3	2	1	-	1	10			
Engineering	1	3	2	1	-	2	9			
Total	62	132	59	10	8	18	289			

Tabulated value $\chi^2_{30} (0.05) = 43.773$

(c) Citations in Articles:

In the table 102, the number of respondents who indicated first priority to Determining Periodicals Information through citations in articles is 26 (9.0%), 53 (18.34%) respondents indicated second priority to determining periodicals information through citations in articles, 137 (47.40%) respondents indicated third priority to determining periodicals information through citations in articles, 45 (15.57%) respondents indicated fourth priority to determining periodicals information through citations in articles, 15

(5.19%) respondents indicated fifth priority to determining periodicals information through citations in articles and 13 (4.50%) respondents indicated sixth priority to determining periodicals information through citations in articles.

Table – 105

Summary of Chi Square test

Faculty x Citations Articles

Faculty	Citations Articles						Total	Chi Square	df	P
	1	2	3	4	5	6				
Art	8	21	73	25	6	7	140	28.92	30	NS
Science	4	16	40	10	4	3	77			
Commerce	5	5	9	4	3	1	27			
Agriculture	2	3	5	2	1	1	14			
Law	2	4	4	1	1	-	12			
Medical	2	3	3	2	-	-	10			
Engineering	3	1	3	1	-	1	9			
Total	26	53	137	45	15	13	289			

Tabulated value $\chi^2_{30} (0.05) = 43.773$

In the table 105, the χ^2 value of Faculty x citations in articles is 28.92. The degree of freedom is 30. The tabulated value of χ^2 for 30 df at 5% level of significance is 43.773. Since the calculated value of χ^2 is less than the tabulated value of χ^2 , we conclude that

the hypothesis is accepted. It is not significant at $p = 0.05$.

(d) Consulting Colleagues:

In the table 102, 5 (1.73%) respondents indicated first priority to Determining Periodicals Information through consulting colleagues, 13 (4.50%) respondents indicated second priority to determining periodicals information through consulting colleagues, 21 (7.27%) respondents indicated third priority to determining periodicals information through consulting colleagues while 166 (57.44%) respondents indicated fourth priority to determining periodicals information through consulting colleagues, 61 (21.11%) respondents indicated fifth priority to determining periodicals information through consulting colleagues whereas 23 (7.96%) respondents indicated sixth priority to determining periodicals information through consulting colleagues.

In the below table 106, the χ^2 value of faculty x consulting colleagues is 25.07. The degree of freedom is 30. The tabulated value of χ^2 for 30 df at 5% level of significance is 43.773. Since the calculated value of χ^2 is less than the tabulated value of χ^2 , we conclude that the hypothesis is accepted. It is not significant at $p = 0.05$.

Table – 106

***Summary of Chi Square test
Faculty X Consulting Colleagues***

Faculty	Consulting Colleagues						Total	Chi Square	df	P
	1	2	3	4	5	6				
Art	2	5	7	91	26	9	140	25.07	30	NS
Science	2	3	4	44	18	6	77			
Commerce	-	2	3	12	7	3	27			
Agriculture	1	1	2	7	3	-	14			
Law	-	-	2	5	3	2	12			
Medical	-	1	2	4	2	1	10			
Engineering	-	1	1	3	2	2	9			
Total	5	13	21	166	61	23	289			

Tabulated value $\chi^2_{30} (0.05) = 43.773$

(e) Consulting Library Staff:

In the table 102, 4 (1.38%) respondents indicate first priority to Determining Periodicals Information through consulting library

staff, 3 (1.04%) respondents indicate second priority to determining periodicals information through consulting library staff, 10 (3.46%) respondents gave third priority to determining periodicals information through consulting library staff, 45 (15.57%) respondents indicated fourth priority to determining periodicals information through consulting library staff, 179 (61.94%) respondents indicated fifth priority to determining periodicals information through consulting library staff whereas 48 (16.61%) respondents indicated sixth priority to determining periodicals information through consulting library staff.

Table – 107

***Summary of Chi Square test
Faculty X Consulting Library Staff***

Faculty	Consulting Library Staff						Total	Chi Square	df	P
	1	2	3	4	5	6				
Art	1	-	4	17	89	29	140	49.79	30	Significant
Science	1	1	2	11	56	8	77			
Commerce	-	-	2	5	16	4	27			
Agriculture	-	-	-	3	8	3	14			
Law	-	-	-	4	6	2	12			
Medical	1	1	1	2	4	1	10			
Engineering	1	1	1	2	3	1	9			
Total	4	3	10	45	179	48	289			

Tabulated value $\chi^2_{30} (0.05) = 43.773$

In the above table 107, the χ^2 value of faculty x consulting library staff is 49.79. The degree of freedom is 30. The tabulated value of χ^2 for 30 df at 5% level of significance is 43.773. Since the calculated value of χ^2 is greater than the tabulated value of χ^2 , we conclude that the hypothesis is rejected. It is significant at $p = 0.05$.

(f) **Any Other:**

In the table 102, 52 (17.99%) respondents gave first priority to Determining Periodicals Information through any other method, 30 (10.38%) respondents gave second priority to determining periodicals information through any other method, 10 (3.46%) respondents gave third priority to determining periodicals information through any other method, 10 (3.46%) respondents gave fourth priority to determining periodicals information through any other method, 15 (5.19%) respondents gave fifth priority to determining periodicals information through any other method whereas 172 (59.52%) respondents indicate priority to determining periodicals information through any other method.

17. Access to Journals

The table 108 indicates the various methods of access to the journals by the respondent teachers in different districts and their respective colleges of Bundelkhand University, Jhansi.

Table – 108

Methods of Access		Rank of 1 st Priority	Rank of 2 nd Priority	Rank of 3 rd Priority	Rank of 4 th Priority
Personal copy through subscription	F	51	79	93	66
	P	17.65	27.33	32.18	22.84
Personal copy through membership	F	78	96	88	27
	P	26.99	33.22	30.45	9.34
From colleagues	F	22	39	60	168
	P	7.61	13.49	20.76	58.13
Library of your Institute	F	138	75	48	28
	P	47.75	25.95	16.61	9.69

F = Frequency and P = Percentage

(a) Personal Copy Through Subscription:

In the table 108, 51 (17.65%), respondents indicated first preference to accessing the journals through their personal subscription, 79 (27.33%) respondents indicated second preference to accessing the journals through their personal subscription, 93 (32.18%) respondents indicated third preference to accessing journal through their personal subscription, while 66 (22.84%) respondents indicated fourth preference to accessing journals through their personal subscription.

Table - 109

Summary of Chi Square test
Qualification X Accessing to Journals
Through Personal Subscription

Qualification	Accessing Journals Through Personal Subscription					Chi Square	Df	P
	1	2	3	4	Total			
Ph.D	29	44	51	41	165	0.938	3	NS
Non Ph.D	22	35	42	25	124			
Total	51	79	93	66	289			

Tabulated value $\chi^2_3 (0.05) = 7.815$

In the above table 109, the χ^2 value of qualification x accessing journals through personal subscription is 0.938. The degree of freedom is 3. The tabulated value of χ^2 for 3 df at 5% level of significance is 7.815. Since the calculated value of χ^2 is less than the tabulated value of χ^2 , we conclude that the hypothesis is accepted. It is not significant at $p = 0.05$.

Table – 110

Summary Of Chi Square Test

Age X Accessing to Journals Through Personal Subscription

Age	Accessing to Journals through Personal Subscription				Total	Chi Square	df	P
	1	2	3	4				
Below – 35	14	22	25	15	76	3.67	9	NS
36 – 45	15	22	31	19	87			
46 – 55	13	26	27	24	90			
56 – Above	9	9	10	8	36			
Total	51	79	93	66	289			

Tabulated value $\chi^2_{9, (0.05)} = 16.919$

In the above table 110, the χ^2 value of Age x accessing to journals through personal subscription is 3.67. The degree of freedom is 9. The tabulated value of χ^2 for 9 df at 5% level of significance is 16.919. Since the calculated value of χ^2 is less than the tabulated value of χ^2 , we conclude that the hypothesis is accepted. It is not significant at $p = 0.05$.

(b) Personal Copy Through Membership:

In the table 108, 78 (26.99%) respondents indicated first priority to accessing the journals through their personal membership, 96 (33.22%) respondents indicated second priority to accessing the journals through their personal membership, 88

(30.45%) respondents indicated third priority to accessing the journals through their personal membership whereas 27 (9.34%) respondents gave fourth priority to accessing the journals through their personal membership.

Table – 111

***Summary Of Chi Square Test
Qualification X Accessing to Journals Through Membership***

Qualification	Accessing to Journals through Membership				Total	Chi Square	df	P
	1	2	3	4				
Ph.D	46	57	45	17	165	2.03	3	NS
Non Ph.D.	32	39	43	10	124			
Total	78	96	88	27	289			

Tabulated value $\chi^2_3 (0.05) = 7.815$

In the above table 111, the χ^2 value of qualification x accessing to the journals through personal membership is 2.03. The degree of freedom is 3. The tabulated value of χ^2 for 3 df at 5% level of significance is 7.815. Since the calculated value of χ^2 is less than the tabulated value of χ^2 , we conclude that the hypothesis is accepted. It is not significant at $p = 0.05$.

Table – 112

Summary of Chi Square test
Age X Accessing to Journals Through Membership

Age	Accessing to Journals through Membership				Total	Chi Square	df	P
	1	2	3	4				
Below – 35	23	24	23	6	76	2.38	9	NS
36 – 45	23	29	28	7	87			
46 – 55	25	19	26	10	90			
56 – Above	7	14	11	4	36			
Total	78	96	88	27	289			

Tabulated value χ^2 , (0.05) = 16.919

In the above table 112, the χ^2 value of Age x accessing to the journals through personal membership is 2.38. The degree of freedom is 9. The tabulated value of χ^2 for 9 df at 5% level of significance is 16.919. Since the calculated value of χ^2 is less than the tabulated value of χ^2 , we conclude that the hypothesis is accepted. It is not significant at $p = 0.05$.

(c) **From Colleagues:**

In the table 108, 22 (7.61%) respondents indicate first priority to accessing the journals from their colleagues, 39 (13.49%) respondents indicate second priority to accessing the journals from their colleagues, 60 (20.76%) respondents indicate third priority

from their colleagues while 168 (58.13%) respondents indicate fourth priority to accessing the journals from their colleagues.

Table – 113

***Summary Of Chi Square Test
Qualification X Accessing to Journals From Colleagues***

Qualification	Accessing to Journals from Colleagues				Total	Chi Square	df	P
	1	2	3	4				
Ph.D	10	20	42	93	165	6.04	3	NS
Non Ph.D.	12	19	18	75	124			
Total	22	39	60	168	289			

Tabulated value $\chi^2_3 (0.05) = 7.815$

In the above table 113, the χ^2 value of qualification x accessing to the journals from colleagues is 6.04. The degree of freedom is 3. The tabulated value of χ^2 for 3 df at 5% level of significance is 7.815. Since the calculated value of χ^2 is less than the tabulated value of χ^2 , we conclude that the hypothesis is accepted. It is not significant at $p = 0.05$.

Table – 114

Summary Of Chi Square Test
Age X Accessing to Journals From Colleagues

Age	Accessing to Journals from Colleagues				Total	Chi Square	df	P
	1	2	3	4				
Below – 35	6	9	13	48	76	2.803	9	NS
36 – 45	6	11	18	52	87			
46 – 55	7	14	19	50	90			
56 – Above	3	5	10	18	36			
Total	22	39	60	168	289			

Tabulated value $\chi^2_{9, (0.05)} = 16.919$

In the above table 114, the χ^2 value of qualification x accessing to the journals from colleagues is 2.803. The degree of freedom is 9. The tabulated value of χ^2 for 9 df at 5% level of significance is 16.919. Since the calculated value of χ^2 is less than the tabulated value of χ^2 , we conclude that the hypothesis is accepted. It is not significant at $p = 0.05$.

(d) Library of their Institution:

In the table 108, 138 (47.75%) respondents indicate first priority to accessing the journals from the library of their respective institution, 75 (25.95%) respondents indicate second priority to accessing the journals from the library of their respective

institution, 48 (16.61%) respondents indicate third priority to accessing the journals from the library of their respective institution whereas 28 (9.69%) respondents indicate fourth priority to accessing the journals from the library of their respective institution.

Table – 115

***Summary of Chi Square test
Qualification X Accessing to Journals From
Library Of Your Institute***

Qualification	Accessing to Journals from Library of Your Institution				Total	Chi Square	df	P
	1	2	3	4				
Ph.D	80	44	27	14	165	1.39	3	NS
Non Ph.D.	58	31	21	14	124			
Total	138	75	48	28	289			

Tabulated value $\chi^2_3 (0.05) = 7.815$

In the above table 115, the χ^2 value of qualification x accessing to the journals from the library of their respective institution is 1.39. The degree of freedom is 3. The tabulated value of χ^2 for 3 df at 5% level of significance is 7.815. Since the calculated value of χ^2 is less than the tabulated value of χ^2 , we conclude that the hypothesis is accepted. It is not significant at $p = 0.05$.

Table – 116

***Summary of Chi Square test
Age X Accessing to Journals From Library Of Your Institute***

Age	Accessing to Journals from Library of Your Institute				Total	Chi Square	df	P
	1	2	3	4				
Below – 35	37	21	12	6	76	5.206	9	NS
36 – 45	43	21	14	9	87			
46 – 55	45	21	15	9	90			
56 – Above	13	12	7	4	36			
Total	138	75	48	28	289			

Tabulated value $\chi^2_9 (0.05) = 16.919$

In the above table 116, the χ^2 value of qualification x accessing to the journals from the library of their respective institution is 5.206. The degree of freedom is 9. The tabulated value of χ^2 for 9 df at 5% level of significance is 16.919. Since the calculated value of χ^2 is less than the tabulated value of χ^2 , we conclude that the hypothesis is accepted. It is not significant at $p = 0.05$.

18. Reservations for New Books

The table 117 highlights the interests of the respondent teachers in different district and their respective colleges of Bundelkhand University, Jhansi towards reservation for new books.

The table indicates that 180 (62.28%) respondents reveal interest for reservation of new books whereas 109 (37.72%) respondents do not reveal interest for reservation of new books.

Table 117
Reservations For New Books

	Yes	No
Frequency	180	109
Percentage	62.28	37.72

19. **Frequency of Attending Conferences, Seminars, Workshops, Lectures etc.**

Table 118

Frequency Of Attending Conferences, Seminars, Workshops, Lectures Etc.

Attending conferences, seminars, workshops, lectures etc.	Frequency	Percentage
1. Very frequently	54	18.69
2. Frequently	69	23.88
3. Sometimes	110	38.06
4. Rarely	42	14.53
5. Never	14	4.84

The table 118 indicates the frequency of attending conferences, seminars, workshops, lectures etc., by the respondent teachers of different districts and their respective colleges of Bundelkhand University, Jhansi. The table reveals that 54

(18.69%) respondents very frequently attend conferences, seminars, workshops, lectures etc., 69 (23.88%) respondents attend conferences, seminars, workshops, lectures etc. frequently, 110 (38.06%) respondents attend conferences, seminars, workshops, lectures etc. sometimes, 42 (14.53%) respondents rarely attend conferences, seminars, workshops, lectures etc., whereas 14 (4.84%) respondents never attend conferences, seminars, workshops, lectures etc.,

Table – 119

*Summary of Chi Square test
Qualification X Frequency Of Attending
Conferences/Seminars Etc.*

Qualification	Frequency of attending conferences/seminars etc.					Total	Chi Square	Df	P
	1	2	3	4	5				
Ph.D	32	49	58	20	6	165	9.11	4	NS
Non Ph.D.	22	20	52	22	8	124			
Total	54	69	110	42	14	289			

Tabulated value $\chi^2_4 (0.05) = 9.488$

In the above table 119, the χ^2 value of qualification x frequency of attending conferences, seminars, workshops, lectures etc. is 9.11. The degree of freedom is 4. The tabulated value of χ^2 for 4 df at 5% level of significance is 9.488. Since the calculated value of χ^2 is less than the tabulated value of χ^2 , we conclude that the hypothesis is accepted. It is not significant at $p = 0.05$.

Table – 120

*Summary Of Chi Square Test
Age X Frequency Of Attending Conferences/Seminars Etc.*

Age	Frequency of attending conferences/seminars etc.					Total	Chi Square	df	P
	1	2	3	4	5				
Below – 35	10	17	24	17	8	76	17.308	12	NS
36 – 45	17	21	35	13	01	87			
46 – 55	18	22	39	08	3	90			
56 – Above	9	9	12	04	2	36			
Total	54	69	110	42	14	289			

Tabulated value $\chi^2_{12} (0.05) = 21.026$

In the above table 120, the χ^2 value of qualification x frequency of attending conferences, seminars, workshops, lectures etc. is 17.308. The degree of freedom is 12. The tabulated value of χ^2 for 12 df at 5% level of significance is 21.026. Since the calculated value of χ^2 is less than the tabulated value of χ^2 , we conclude that the hypothesis is accepted. It is not significant at $p = 0.05$.

20. *Usefulness of Attending Conferences, Seminars, Workshops, Lectures etc.*

Table – 121

Purpose		Very Useful	Useful	Not so Useful	Not Useful
1. Provide new Ideas/Directions	F	155	77	11	46
	P	53.63	26.64	3.81	15.92
2. Provide information about what work others are doing	F	66	125	18	80
	P	22.84	43.25	6.23	27.68
3. Enable me to tell others about my work or experience	F	41	110	24	114
	P	14.19	38.06	8.30	39.45
4. Enable me to establish new contacts	F	56	106	27	100
	P	19.38	36.68	9.34	34.60
5. Provide information not received from other sources	F	44	117	22	106
	P	15.22	40.48	7.61	36.68
6. Allow discussion	F	76	119	20	74
	P	26.30	41.18	6.92	25.61
7. Any other (Pl. specify)	F	17	24	12	236
	P	5.88	8.30	4.15	81.66

The table 121 indicates the opinion of the respondent teachers in different districts and their respective colleges of Bundelkhand University, Jhansi regarding the usefulness of attending conferences, seminars, workshops lectures etc. as follows:-

(a) **Provide New Ideas/Directions:**

In the table 121, 155 (53.63%) respondents indicate attending conferences/seminars etc. very useful for providing new

ideas/directions, 77 (26.64%) find conference etc. useful for providing new ideas, 11 (3.81%) find seminars, lectures etc. not so useful and 46 (15.92%) find attending lectures, workshops etc. not useful at all for the same.

(b) *Providing Information About What Work Others Are Doing:*

In the table 121, 66 (22.84%) respondents indicate attending conferences/seminars etc. very useful for providing information about what work others are doing, 125 (43.25%) respondents indicate conference etc. useful for the same, 18 (6.23%) respondents indicate lectures/seminars etc. not so useful for providing information about what work others are doing and 80 (27.68%) respondents find conference, seminars etc. not useful at all for the same purpose.

(c) *Enable Me To Tell Others About Their Work Or Experience:*

In the table 121, 4 (14.19%) respondents indicate conferences/seminars etc. very useful for enabling them to tell others about their work or experience, 110 (38.06%) respondents indicate lectures etc. useful for the same, 24 (8.30%) respondents find workshop, lectures etc. not so useful for enabling them to tell others about their work or experience and 114 (39.45%) respondents find conferences, lectures etc. not useful at all.

(d) *Enabling Me To Establish New Contacts:*

In the table 121, 56 (19.38%) respondents indicate conferences/seminars etc. very useful for enabling them to establish new contacts, 106 (36.68%) respondents indicate conferences/seminars etc. useful for the same, 27 (9.34%) respondents indicate seminars/lectures etc. not so useful in establishing new contacts for while 100 (34.60%) respondents find conferences/seminars etc. not useful at all for the same purpose.

(e) *Provide Information Not Received From Other Sources:*

In the table 121, 44 (15.22%) respondents indicate conferences/lectures etc. very useful in providing information not received from other sources, 117 (40.48%) respondents find seminars/lectures etc. useful for the same, 22 (7.61%) respondents find workshops/lectures etc. not so useful and 106 (36.68%) respondents find lectures/conferences etc. not useful at all for the same purpose.

(f) *Allow Discussion:*

In the table 121, 76 (26.30%) respondents indicate conferences/lectures etc. very useful in allowing discussion while 119 (41.18%) respondents indicate conferences/seminars etc. useful for the same, 20 (6.92%) respondents find seminars/workshops etc. not so useful in allowing discussion while 74 (25.61%) respondents find seminars/lectures etc. not useful at all for the same.

(g) Any Other (Pl Specify):

In the table 121, 17 (5.88%) respondents find conferences/lectures etc. very useful for other reasons (if any), 24 (8.30%) respondents find lectures etc. useful for the same, 12 (4.15%) respondents find seminars etc. not so useful for other reasons (if any) and 236 (81.66%) respondents find conferences/seminars etc. not useful at all for the same.

21. Difficulties in Obtaining Information

Table – 122

Difficulties		Yes	No
a. Lack of space	F	47	242
	P	16.26	83.74
b. Information scattered into many sources	F	73	216
	P	25.26	74.74
c. Information is too vast	F	78	211
	P	26.99	73.01
d. Do not have access to a library	F	67	222
	P	23.18	76.82
e. Library used by me lack adequate resources	F	122	167
	P	42.21	57.79
f. Any other (Pl. specify)	F	13	276
	P	4.50	95.50

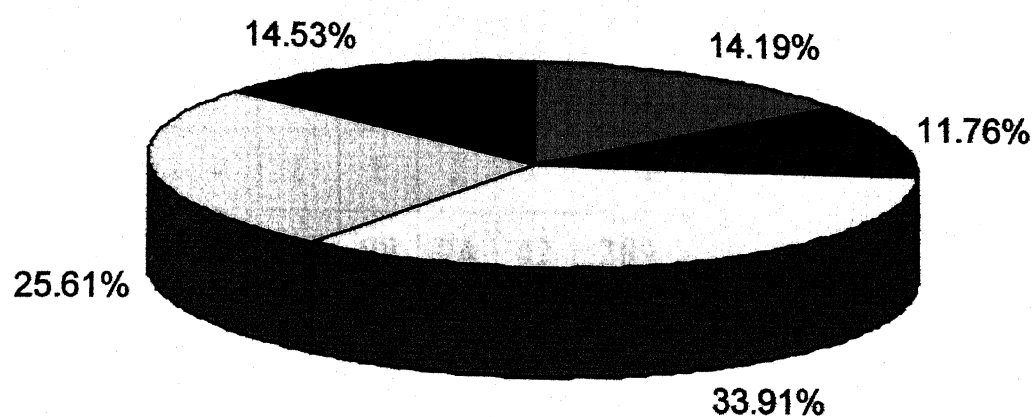
The table 122 indicates the difficulties faced by respondent teachers in different districts and their respective colleges of Bundelkhand University in obtaining information. The table 122

indicates that 47 (16.26%) respondents faced the lack of space while 242 (83.74%) respondents did not, 73 (25.26%) respondents found the information scattered in to many sources while 216 (74.74%) respondent did not, 78 (26.99%) respondent found the information to be too vast while 211 (73.01%) respondents did not, 67 (23.18%) respondents did not have access to a library while 222 (76.82%) respondents had, 122 (42.21%) respondents found the library lacking adequate resources while 167 (57.79%) respondents didn't, and 13 (4.50%) respondents faced other difficulties while 276 (95.50%) respondents did not.

22. Assessment of Library Collection

The figure 4.7 indicates the assessments of library collection by the respondent teachers in difference districts and their respective colleges of Bundelkhand University. The figure illustrates that 41 (14.19%) respondents assessed the library collection to be excellent, 34 (11.76%) respondents assessed the library collection to be very adequate, 98 (33.91%) respondents assessed the library collection to be adequate, 74 (25.61%) respondents assessed the library collection to be inadequate whereas 42 (14.53%) respondents assessed the library collection to be poor.

Assessment of Library Collection



■ Excellent ■ Very Adequate □ Adequate ■ Inadequate ■ Poor

Figure 4.7

Table - 123

Summary of Chi Square test
District X Assessment Of Library Collection

Assessment of Library Collection						Total	Chi Square	df	P
District	1	2	3	4	5				
Jhansi	17	12	50	34	3	116	63.13	24	Highly Significant
Banda	9	2	14	12	13	50			
Jalaun	9	11	10	9	10	49			
Hamirpur	5	2	10	13	11	41			
Lalitpur	1	1	8	2	5	17			
Mahoba	-	5	5	2	-	12			
Karvi	-	1	1	2	-	4			
Total	41	34	98	74	42	289			

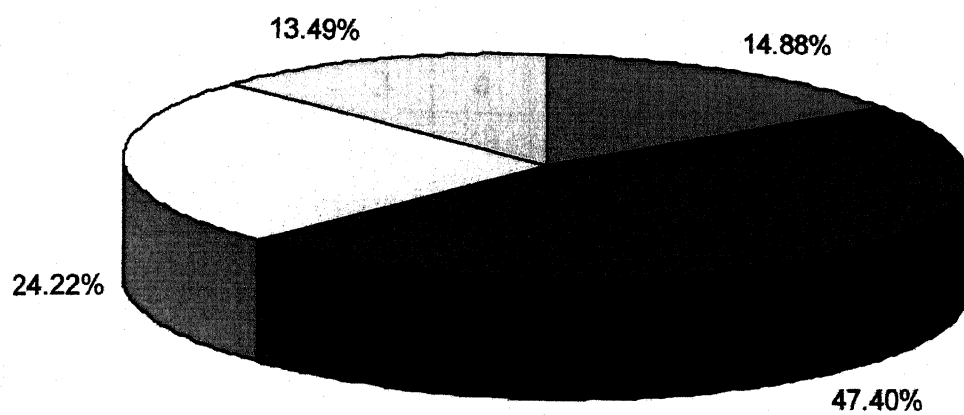
Tabulated value $\chi^2_{24} (0.05) = 36.415$

In the above table 123, the χ^2 value of district x assessment of library collection is 63.13. The degree of freedom is 24. The tabulated value of χ^2 for 24 df at 5% level of significance is 36.415. Since the calculated value of χ^2 is greater than the tabulated value of χ^2 , we conclude that the hypothesis is rejected. It is significant at $p = 0.05$.

23. Frequency of Using Library Catalogue

The figure 4.8 indicates the frequency of using library catalogue by the respondent teachers in different districts and their

Frequency of using Library Catalogue



■ Frequently ■ Some Times □ Rarely □ Never

Figure 4.8

respective colleges of Bundelkhand University. The figure illustrates that 43 (14.88%) respondents use library catalogue frequently, 137 (47.40%) respondents use library catalogue sometimes, 70 (24.22%) respondents use library catalogue rarely while 39 (13.49%) respondents never use library catalogue.

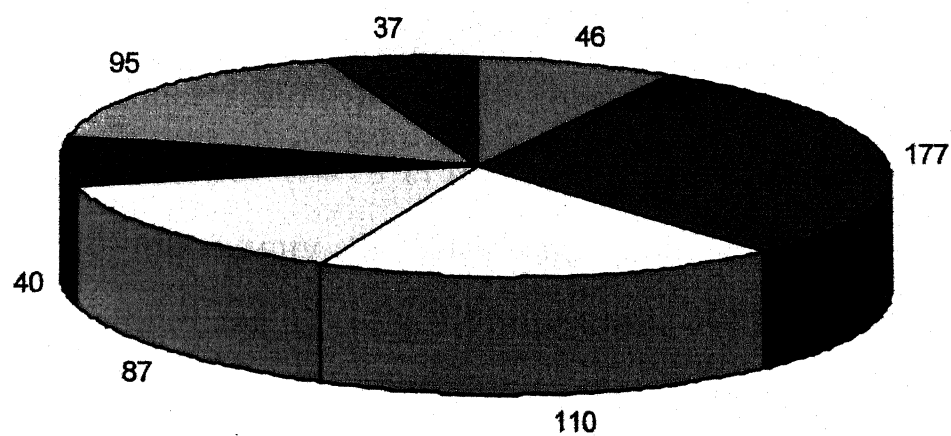
Table - 124
Summary Of Chi Square Test
District X Frequency Of Using Library Catalogue

Assessment of Library Collection					Total	Chi Square	df	P
District	1	2	3	4				
Jhansi	10	71	22	13	116	57.53	18	Highly Significant
Banda	10	26	11	3	50			
Jalaun	5	11	18	15	49			
Hamirpur	7	20	10	4	41			
Lalitpur	9	3	3	2	17			
Mahoba	2	4	4	2	12			
Karvi	-	2	2	-	4			
Total	43	137	70	39	289			

Tabulated value $\chi^2_{18} (0.05) = 28.869$

In the above table 124, the χ^2 value of district x frequency of using library catalogue is 57.53. The degree of freedom is 18. The tabulated value of χ^2 for 18 df at 5% level of significance is 28.869. Since the calculated value of χ^2 is greater than the tabulated value of χ^2 , we conclude that the hypothesis is rejected. It is highly significant at $p = 0.05$.

Purpose of using Library



■ Recreation	■ Academic	□ Professional	□ Ref. & Inf.
■ Inspiration	■ Knowledge	■ Other	

Figure 4.9

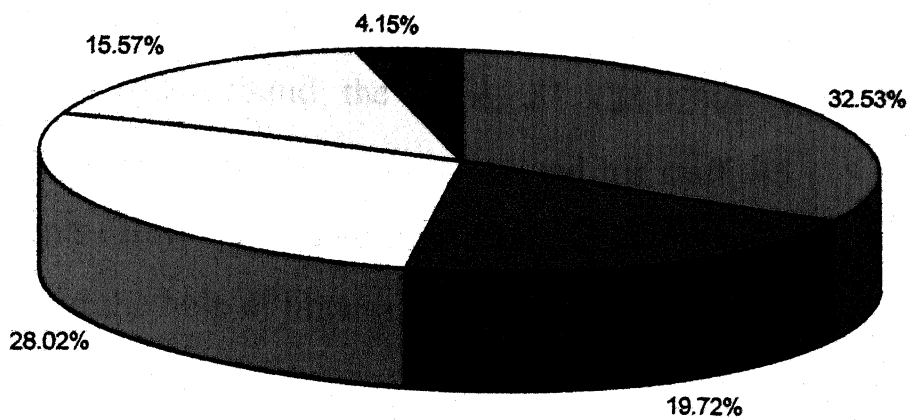
24. Purpose Of Using Library

The figure 4.9 and the table 125 indicate the purpose of using library by the respondent teachers in different districts and their respective colleges of Bundelkhand University. The table shows that 46 (15.92%) respondents use library for recreation while 243 (84.08%) respondents do not, 177 (61.25%) respondents use the library for academic purpose while 112 (38.75%) respondents do not, 110 (38.06%) respondents use the library for professional purpose while 179 (61.94%) respondents don't, 87 (30.10%) respondents use library for reference and information while 202 (69.9%) respondents don't, 40 (13.84%) respondents use library for inspiration while 249 (86.16%) respondents don't, 95 (32.87%) respondents use library for knowledge while 194 (67.13%) respondents don't and 37 (12.80%) respondents use the library for other purposes while 252 (87.20%) respondents don't do the same.

Table – 125
Purpose Of Using Library

Purpose of Using Library	User		Non User	
	Frequency	%age	Frequency	%age
Recreation	46	15.92	243	84.08
Academic	177	61.25	112	38.75
Professional	110	38.06	179	61.94
Ref & Information	87	30.10	202	69.90
Inspiration	40	13.84	249	86.16
Knowledge	95	32.87	194	67.13
Others	37	12.80	252	87.20

Helpfulness of Librarian & his Staff



■ Always ■ Often □ Some Times □ Rarely ■ Never

Figure 4.10

25. Helpfulness of Librarian and His Staff

The figure 4.10 indicates the opinion of the respondent teachers in different district and their respective colleges of Bundelkhand University regarding the helpfulness of the librarian and his staff. The figure shows that 94 (32.53%) respondents always found the librarian and his staff helpful, 57 (19.72%) respondents often found the same, 81 (28.02%) respondents sometimes found the help of librarian and his staff, 45 (15.57%) respondents rarely found the same whereas 12 (4.15%) respondents never found the help of librarian and his staff.

Table - 126

*Summary of Chi Square test
District X Helpfulness Of Library Staff*

<i>Helpfulness of Library Staff</i>						Total	Chi Square	df	P
District	1	2	3	4	5				
Jhansi	50	17	20	25	4	116	47.57	24	Significant
Banda	14	7	20	6	3	50			
Jalaun	10	9	24	4	2	49			
Hamirpur	12	15	7	5	2	41			
Lalitpur	3	7	3	3	1	17			
Mahoba	3	2	5	2	-	12			
Karvi	2	-	2	-	-	4			
Total	94	57	81	45	12	289			

Tabulated value $\chi^2_{24} (0.05) = 36.415$

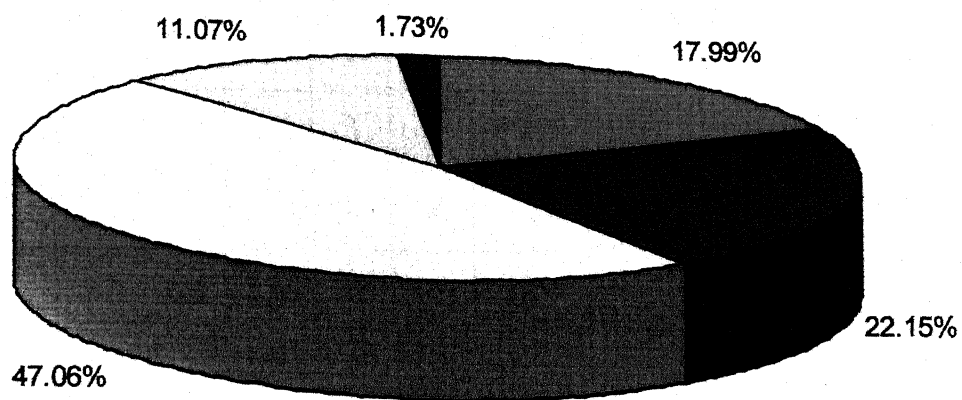
In the above table 126, the χ^2 value of district x helpfulness of library staff is 47.57. The degree of freedom is 24. The tabulated value of χ^2 for 24 df at 5% level of significance is 36.415. Since the calculated value of χ^2 is greater than the tabulated value of χ^2 , we conclude that the hypothesis is rejected. It is significant at $p = 0.05$.

26. Library Opening Hours

The figure 4.11 indicates the convenience of the teachers of different district and their respective colleges of Bundelkhand University regarding the library opening hours. The figures show that 52 (17.99%) respondents find library opening hours to be very convenient, 64 (22.15%) respondents find these hours to be fairly convenient, 136 (47.06%) respondents find the opening hours to be convenient, 32 (11.07%) respondents find these hours to be inconvenient while 05 (1.73%) respondents find the library opening hours to be very inconvenient.

In the table 127, the χ^2 value of district x library opening hours is 37.29. The degree of freedom is 24. The tabulated value of χ^2 for 24 df at 5% level of significance is 36.45. Since the calculated value of χ^2 is greater than the tabulated value of χ^2 , we conclude that the hypothesis is rejected. It is highly significant at $p = 0.05$.

Library Opening Hours



■ Very Convenient	■ Fairly Convenient	□ Convenient
□ Inconvenient	■ Very Inconvenient	

Figure 4.11

Table - 127

*Summary of Chi Square test
District X Library Opening Hours*

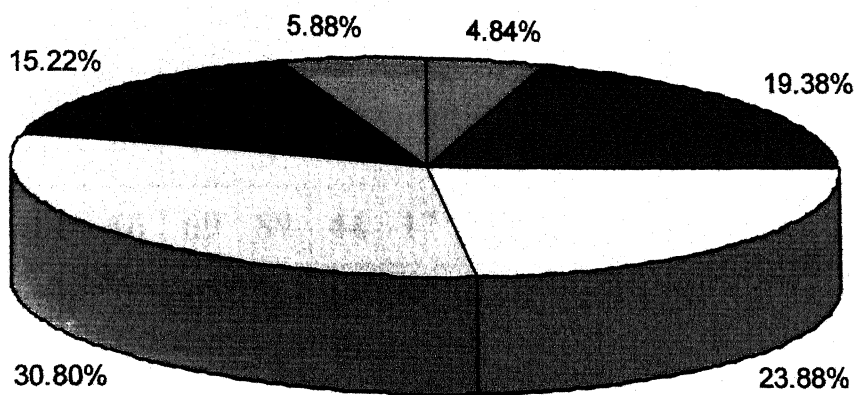
Library Opening Hours						Total	Chi Square	df	P
District	1	2	3	4	5				
Jhansi	26	33	41	14	2	116	37.29	24	Signi- ficant
Banda	6	5	33	4	2	50			
Jalaun	3	10	30	5	1	49			
Hamirpur	8	8	20	5	-	41			
Lalitpur	7	5	4	1	-	17			
Mahoba	1	1	7	3	-	12			
Karvi	1	2	1	-	-	4			
Total	52	64	136	32	05	289			

Tabulated value $\chi^2_{24}(0.05) = 36.415$

27. Opinion Regarding the use of Library Collection

The figure 4.12 indicates the opinion of the teachers of Bundelkhand University regarding the use of library collection. The figure shows that 14 (4.84%) respondents indicate upto 100% use of library collection, 56 (19.38%) respondents indicate upto 90% use of library collection, 69 (23.88%) respondent indicate upto 75% use of library collection, 89 (30.80%) respondents indicate upto 50% use of library collection, 44 (15.22%) respondents indicate upto 25% use of library collection and 17 (5.88%) respondents indicate less than 25% use of library collection.

Opinion regarding the use of Library Collection



■ Upto 100%	■ Upto 90%	□ Upto 75%
□ Upto 50%	■ Upto 25%	■ Less than 25%

Figure 4.12

Table - 128

*Summary of Chi Square test
District X Opening Regarding The Use Of Library Collection*

Usable Library Collection							Total	Chi Square	df	P
District	1	2	3	4	5	6				
Jhansi	11	22	28	37	15	3	116	63.83	30	H.S.
Banda	1	6	14	16	9	4	50			
Jalaun	1	4	13	17	11	3	49			
Hamirpur	1	10	8	10	5	7	41			
Lalitpur	-	7	5	5	-	-	17			
Mahoba	-	7	1	-	4	-	12			
Karvi	-	-	-	4	-	-	4			
Total	14	56	69	89	44	17	289			

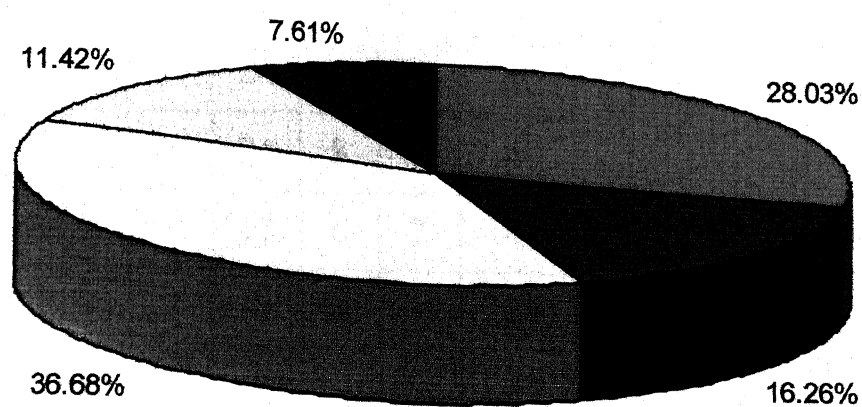
Tabulated value $\chi^2_{30} (0.05) = 43.773$

In the above table 128, the χ^2 value of district x opinion regarding the use of library is 63.88. The degree of freedom is 30. The tabulated value of χ^2 for 30 df at 5% level of significance is 43.773. Since the calculated value of χ^2 is greater than the tabulated value of χ^2 , we conclude that the hypothesis is rejected. It is highly significant at $p = 0.05$.

4 **28. Providing Training Programmes**

Figure 4.13 indicates the views of teachers of Bundelkhand University for providing training programmes. The figure shows that 81 (28.03%) respondents support training programmes to a

Opinion regarding the use of Library Collection



■ Very great extent	■ Great extent	□ Some extent
□ Little extent	■ Not at all	

Figure 4.13

very great extent, 47 (16.26%) respondents support the same to great extent, 106 (36.68%) respondents support training programmes to some extent, 33 (11.42%) respondents support the same to little extent while 22 (7.61%) respondents do not support providing training programmes at all.

Table - 129

***Summary of Chi Square test
District X Providing Training Programs***

<i>Providing Training Programmes</i>						Total	Chi Square	df	P
District	1	2	3	4	5				
Jhansi	45	21	36	9	5	116	62.72	24	Highly Significant
Banda	9	7	26	4	4	50			
Jalaun	9	3	24	8	6	49			
Hamirpur	9	7	12	6	7	41			
Lalitpur	9	4	-	4	-	17			
Mahoba	1	3	8	-	-	12			
Karvi	-	2	-	2	-	4			
Total	81	47	106	33	22	289			

Tabulated value $\chi^2_{24} (0.05) = 36.415$

In the above table 129, the χ^2 value of district x providing training programs is 62.72. The degree of freedom is 24. The tabulated value of χ^2 for 24 df at 5% level of significance is 36.415. Since the calculated value of χ^2 is greater than the tabulated value of χ^2 , we conclude that the hypothesis is rejected. It is highly significant at $p = 0.05$.

Comparative studies of Professor, Reader, Sr. Lecturer and Lecturer

1. Visit of the Library

Table 130

	Professor	Reader	Sr. Lecturer	Lecturer	Total
Daily F	3	9	12	57	81
P	21.42	10.98	25.00	39.31	28.03
More than once a week F	-	7	4	21	32
P	-	8.54	8.33	14.48	11.07
Once a week F	5	15	10	12	42
P	35.71	18.29	20.83	8.28	14.53
Fortnightly F	1	2	2	-	05
P	7.14	2.44	4.17	-	1.73
Once a month F	-	3	-	3	06
P	-	3.66	-	2.07	2.08
When there is need F	5	44	19	51	119
P	35.71	53.66	39.58	35.17	41.18
Rarely F	-	2	1	1	04
P	-	2.44	2.08	0.69	1.38
Total	14	82	48	145	289

We see that table 130 represents the frequency by which different categories of teachers visit the Library.

We see that 57 (39.314) Lecturer~~y~~ visit the library daily, whereas 12 (25.00%). Senior lecturers, 3 (21.42%) Professors and 9 (10.98%) Readers visit the library daily.

This shows that the percentage of Lecturers who visit the library daily is more than that of Senior Lecturers, Professors and Readers.

Simiarly, 21 (14.48%) Lecturer visit the library more than once a week, whereas 7 (8.54%) Readers, 4 (8.33%) Senior Lecturers and no Professors visit the library more than once a week.

This shows that the percentage of lecturers who visit the library more than once a week is greater than that of Senior Lecturers, Professors and Readers

Similarly, 5 (35.71%) Professors visit the library once a week, while, 10 (20.83%) Senior Lecturer, 15 (18.29%) Readers and 12 (8.28%) Lecturers visit the library once a week.

This shows that the percentage of Professors who visit the library once a week is greater than that of Readers, Senior Lecturers and lecturers.

Again, 1 (7.14%) Professors visit the library fortnightly while 2 (4.17%) Senior Lecturers, 2 (2.44%) Readers and no Lecturers visit the library fortnightly.

This shows that the percentage of Professors who visit the library fortnightly is greater than that of Readers, Lecturers and Sr. Lecturers.

Now, 3 (3.66%) Readers visit the library once a month while 3 (2.07%) Lecturers, and no Professors and Sr. Lecturers visit the library once a month.

This shows that the percentage of Readers who visit the library once a month is greater than that of all other categories of teacher.

Again, 44 (53.66%) Readers 5 (35.71%) Professors, 51 (35.71%) Lecturers and 19 (39.58%) Sr. Lecturers visit the library where there is need.

This shows that the percentage of Readers who visit the library when there is need is greater than that of all other categories of teachers.

Similarly 2 (2.44%) Readers, 1 (2.08%) Sr. Lecturers, 1 (0.69%) Lecturers and no Professors visit the library rarely.

This shows that the percentage of Readers who visit the library rarely is greater than Professors, Sr. Lecturers and Lecturers.

2. Purpose of Using Library

(A) To get book Issued

Table 131

	Professor	Reader	Sr. Lecturer	Lecturer	Total
Very frequently F	05	39	20	62	126
Very frequently P	35.71	47.56	41.67	42.76	43.6
Frequently F	4	21	13	77	115
Frequently P	28.57	25.61	27.08	53.10	39.79
Sometimes F	4	21	13	6	44
Sometimes P	28.57	25.61	27.08	4.14	15.22
Rarely F	1	1	2	-	04
Rarely P	7.14	1.22	2.44	-	2.76
Never F	-	-	-	-	-
Never P	-	-	-	-	-
Total	14	82	48	145	289

Table 131 gives the frequency of using the library by different categories of teachers for the first purpose i.e. (a) to get books issued.

We see that 39 (47.56%) Readers, 62 (42.76%) Lecturers, 20 (41.67%) Sr. Lecturers and 05 (35.71%) Professors very frequently visit the library to get books issued.

This shows that the percentage of Readers who visit the library very frequently to get books issued is greater than that of another categories of teachers.

Again, 77 (53.10%) Lecturer 4 (28.57%) Professors, 13 (27.08%) Sr. Lecturers and 21 (25.61%) Readers visit the library frequently to get books issued

This shows that the percentage of Lecturers who visit the library frequently to get books issued is greater than that of a;; other categories of teachers.

Similarly, 4 (28.57%) Professors 13 (27.08%) Sr. Lecturers, 21 (25.61%) Readers and 6 (4.14%) Lecturers, sometimes visit the library to get books issued.

This shows that the percentage of Professors who visit the library sometimes to get books issued is greater than that of all other categories of teachers.

Again, 1 (7.14%) Professors 2 (2.44%) Sr. Lecturers, 1 (1.22%) Readers and no Lecturers visit the library rarely to get books issued.

This shows that the percentage of Professors who visit the library is greater than that of all to get books issued other categories of teachers.

Finally, we see that there are no Professors Readers Sr. Lecturers or Lecturers who never visit the library to get books issued.

(B) To use Periodicals

Table 132

	Professor	Reader	Sr. Lecturer	Lecturer	Total
Very frequently F	06	28	15	54	103
P	35.71	34.15	31.25	37.24	35.64
Frequently F	5	33	19	54	111
P	35.71	40.24	39.58	37.24	38.41
Sometimes F	2	18	11	25	56
P	14.29	21.95	22.92	17.24	19.38
Rarely F	1	1	2	8	12
P	7.14	1.22	4.17	5.56	4.15
Never F	-	2	1	4	7
P	-	2.44	2.08	2.76	2.42
Total	14	82	48	145	289

Table 132 indicates the frequency of questing the library by teachers of different categories for the second purpose i.e. (b) to use periodicals.

We see that 6 (42.86%) Professors, 54 (37.34%) Lecturers, 28 (34.15%) Readers and 15 (31.25%) Sr. Lecturers visit the library very frequently to use periodicals.

This shows that the percentage of Professors who visit the library very frequently to use periodicals is the greatest in the above case.

Again, 33 (40.24%) Readers, 19 (39.58%) Sr. Lecturers, 54 (37.24%) Lecturers and 5 (35.71%) Professors visit the library frequently to use periodicals.

This shows that the percentage of Readers is the greatest in the above case.

Similarly, 11 (22.92%) Sr. Lecturers, 18 (21.95%) Readers, 25 (17.24%) Lecturers and 2 (14.29%) Professors visit the library sometimes to use periodicals.

This shows that the percentage of Sr. Lecturers is the greatest in the above case.

Again, 1 (7.14%) Professors, 8 (5.56%) Lecturers, 2 (4.17%) Sr. Lecturers and 1 (1.22%) Readers visit the library rarely to use periodicals.

This shows that the percentage of Professors is greatest in the above case.

Finally, 4 (2.76%) Lecturers, 2 (2.44%) Readers, 1 (2.08%) Sr. Lecturers and no Professors never visit the library to use periodicals.

This shows that the percentage of Lecturers who never visit the library is greater than Readers, Sr. Lecturers & Professors

(C) To use Reference Materials

Table 133

		Professor	Reader	Sr. Lecturer	Lecturer	Total
Very frequently	F	4	17	13	33	67
	P	28.57	20.73	27.08	22.75	23.18
Frequently	F	2	28	12	54	96
	P	14.29	34.15	25.00	37.24	33.22
Sometimes	F	8	31	19	43	101
	P	57.14	37.80	39.58	29.66	34.95
Rarely	F	-	4	4	15	23
	P	-	4.88	8.33	10.34	7.96
Never	F	-	2	-	-	2
	P	-	2.44	-	-	0.69
Total		14	82	48	145	289

Table 133 shows the frequency of investing the library by the teachers of different categories for the third purpose i.e. (c) to use reference material.

We see that 4 (28.57%) Professors, 13 (27.08%) Sr. Lecturers, 33 (22.75%) Lecturers and 17 (20.73%) Readers visit the library very frequently to use reference material.

This shows that the percentage of Professors is the greatest in the above case.

Similarly, 54 (37.247%) Lecturers, 28 (34.15%) Readers, 12 (25.00%) Sr. Lecturers and 2 (14.29%) Professors visit the library frequently to use reference material.

This shows that the percentage of Lecturers is the greatest in the above case.

Again, 8 (57.14%) Professors 19 (39.58%) Sr. Lecturers, 31 (37.80%) Readers and 43 (29.66%) Lecturers visit the library sometimes to use reference material.

This shows that the percentage of Professors is the greatest in the above case.

Similarly, 15 (10.34%) Lecturers, 4 (8.33%) Sr. Lecturers, 4 (4.88%) Readers, and no Professors visit the library rarely to use reference material.

This shows that the percentage of Lecturers who visit the library is greater than that of all other teachers of different categories.

Finally, 2 (2.44%) Readers, and no Professors, Sr. Lecturers and Lecturers never visit the library to use reference material.

(D) To use News papers & Magazines

Table 134

	Professor	Reader	Sr. Lecturer	Lecturer	Total
Very frequently F	3	6	4	16	29
Very frequently P	21.43	7.32	8.33	11.03	10.03
Frequently F	2	5	10	19	36
Frequently P	14.29	6.1	20.83	13.10	12.45
Sometimes F	5	37	16	51	109
Sometimes P	35.71	45.12	33.33	35.17	25.95
Rarely F	3	29	14	42	88
Rarely P	21.43	35.37	29.17	28.97	30.45
Never F	1	5	4	17	27
Never P	7.14	6.1	8.33	11.72	9.34
Total	14	82	48	145	289

Table 134 shows the result & the frequency of investing the library by the teachers of different categories for the fourth purpose i.e. (d) to use newspapers and magazines.

We see that, 3 (21.43%) Professors, 16 (11.03%) Lecturers, 4 (8.33%) Sr. Lecturers and 6 (7.32%) Readers visit the library very frequently to use newspapers and magazines.

This shows that the percentage of Lecturers who visit the library very frequently to use newspapers is greater than that of all other categories of teachers and magazines.

Again, 10 (20.83%) Sr. Lecturer, 2 (14.29%) Professors, 19 (13.10%) Lecturers and 5 (6.1%) Readers visit the library frequently to use newspapers and magazines.

This shows that the percentage of Sr. Lecturers is the greatest in this case.

Similarly, 37 (45.12%) Readers, 5 (33.71%) Professor, 51 (35.17%) Lecturers and 16 (33.33%) Sr. Lecturers visit the library sometimes to use newspapers and magazines.

This shows that the percentage of Readers is greater than all other categories of teachers who visit the library sometimes to use newspapers and magazines.

Again, 29 (35.37%) Readers, 14 (29.17%) Sr. Lecturers, 42 (28.97%) Lecturers and 3 (21.43%) Professors visit the library rarely to use newspapers and magazines.

This shows that the percentage of Readers is greater than all other categories of teachers who visit the library rarely to use newspapers and magazines.

Finally, 17 (11.72%) Lecturers, (8.33%) Sr. Lecturers, 1 (7.14%) Professors and 5 (6.1%) Readers never visit the library to use newspapers and magazines.

This shows that the percentage of Lecturers is greater than all others categories of teachers who never visit the library to use newspapers and magazines.

(E) To use Audio - Visual Material

Table 135

	Professor	Reader	Sr. Lecturer	Lecturer	Total
Very frequently F	-	1	1	-	2
Very frequently P	-	1.22	2.08	-	0.69
Frequently F	2	1	2	2	7
Frequently P	14.29	1.22	4.17	1.38	2.42
Sometimes F	2	5	3	6	16
Sometimes P	14.29	6.1	6.25	4.14	5.54
Rarely F	3	22	14	28	67
Rarely P	21.43	26.83	29.17	19.31	23.18
Never F	7	53	28	109	197
Never P	50.00	64.63	58.33	75.17	68.17
Total	14	82	48	145	289

Table 135 gives the result of the frequency of visiting the library by the teachers of different categories for the five purpose i.e. (e) to use Audio - Visual Material.

We see that, 1 (2.08%) Sr. Lecturers, 1 (1.22%) Readers and no Professors or Lecturers visit the library very frequently to use audio visual material.

This shows that the percentage of Sr. Lecturers is greater than all other categories of teachers who visit the library very frequently to use audio visual.

Now, 2 (14.9%) Professors, 2 (4.17%) Sr. Lecturers, 2 (1.38%) Lecturers and 1 (1.22%) Readers sometimes visit the library for the purpose.

Again, 2 (14.29%) Professors, 3 (6.25%) Sr. Lecturer 5 (6.1%) Readers and 6 (4.14%) Lecturers visit the library sometimes to use audio - visual material.

This shows that the percentage of Professors is greater than all other categories of teachers in the above case.

Again, 14 (29.17%) Sr. Lecturers, 22 (26.83%) Readers, 3 (21.43%), Professors, and 28 (19.31%) Lecturers visit the library rarely to use audio - visual material.

This shows that the percentage of Sr. Lecturers is greater than all other categories of teachers in the above case.

Finally, 109 (75.17%) Lecturers, 53 (64.63%) Readers, 28 (58.33%) Sr. Lecturers and 7 (50.00%) Professors never visit the library to use audio - visual material.

This shows that the percentage of Lecturers is greater than that of Readers Sr. Lecturer and Professors who never visit the library to use audio-visual material.

(E) To Browse Periodicals / books

Table 136

	Professor	Reader	Sr. Lecturer	Lecturer	Total
Very frequently F	3	12	5	33	53
Very frequently P	21.43	14.63	10.42	22.75	18.34
Frequently F	5	32	19	47	103
Frequently P	34.71	39.02	39.58	32.41	35.64
Sometimes F	5	21	12	40	78
Sometimes P	35.71	25.61	25.00	27.59	26.99
Rarely F	-	9	5	17	31
Rarely P	-	11.00	10.42	11.72	10.72
Never F	1	8	7	8	24
Never P	7.14	9.76	14.58	5.56	8.30
Total	14	82	48	145	289

Table 136 gives the result of frequency of visiting the library by teachers of different categories for the sixth purpose i.e. to browse periodicals/books

We see that, 33 (22.75%) Lecturers, 3 (21.43%) Professors. 12 (14.63%) Readers and 5 (10.42%) Sr. Lecturers visit the library very frequently to use periodicals / books.

This shows that the percentage of Lecturers is greater than all other teachers in the above case.

Again, 19 (39.58%) Sr. Lecturer, 32 (39.02%) Readers, 5 (35.71%) Professors, and 47 (32.41%) Lecturers visit the library frequently to use periodicals/books.

This shows that the percentage of Sr. Lecturers is greater than all other teachers in the above case.

Similarly, 5 (35.71%) Professors, 40 (27.59%) Lecturers, 21 (23.61%), Readers and 12 (25.00%) Sr. Lecturers visit the library sometimes for the purpose.

Hence the percentage of Professors is the greatest in the above case.

Again, 17 (11.72%) Lecturers, 9 (11.00%) Readers, 5 (10.42%) Sr. Lecturers, and no Professors visit the library rarely to use periodicals/books.

This shows that the percentage of Lecturers is greatest in the above case.

Finally, 7 (14.58%) Sr. Lecturers, 8 (9.76%) Readers, 1 (7.14%) Professors and 8 (5.56%) Lecturers never visit the library to use periodicals / books.

This shows that the percentage of Sr. Lecturers is greater than all other categories of teachers who never visit the library to use periodicals / books.

3. Attending Conference, Seminar, Lecturers Etc.

Table 137

	Professor	Reader	Sr. Lecturer	Lecturer	Total
Very frequently	5	16	10	23	54
P	35.71	19.51	20.83	15.86	18.69
Frequently	-	27	12	30	69
P	-	32.93	25.00	20.69	23.88
Sometimes	9	29	22	50	110
P	64.29	35.37	45.83	34.48	38.06
Rarely	-	7	3	32	42
P	-	8.54	6.25	22.07	14.53
Never	-	3	1	10	14
P	-	3.66	2.08	6.9	4.84
Total	14	82	48	145	289

Table 137 gives the result of frequency of attending conferences Sr.s, Lecturers etc. by teachers of different categories.

We see that, 5 (35.71%) Professors, 10 (20.83%) Sr. Lecturers, 16 (19.51%) Readers and 23 (15.86%) Lecturers attend conference, seminars etc. very frequently.

This shows that the percentage of Professors is greater than all other teachers in the above case.

Similarly, 27 (32.93%) Readers 12 (25.00%) Sr. Lecturers, 30 (20.69%) Lecturers, and no Professors attend conferences seminars, lectures etc. frequently.

This shows that the percentage of Readers is greater than all other teachers who sometimes attend conferences, seminars etc.

Again, 9 (64.29%) Professors, 22 (45.83%) senior Lecturers, 29 (35.37%) Readers and 50 (34.48%) Lecturers sometimes attend conferences seminars, lectures etc.

This shows that the percentage of Professors is greater than all others teachers in the above case.

Similarly, 32 (22.07%) Lecturers, 7 (8.54%) Readers, 3 (6.25%) Sr. Lecturers and no Professors attend conferences, seminars, lectures etc rarely.

This shows that the frequency of lecturers who attend conferences etc. rarely is greater than all other teachers in this case.

Finally, 10 (6.9%) 3 (3.66%) and 1 (2.08%) Lecturers Readers and Sr. Lecturers respectively and no Professors never attend conferences seminars, lectures etc.

This shows that the percentage of Lecturers who never attend conferences, seminars, lectures etc. is greater than that of Professors Sr. Lecturers and Readers.

t – Test

To make a comparative studies of teachers in different colleges or university we make a t – test. There were in all six comparisons viz Professors & Readers, Sr. Lecturers & Lecturers. Readers and Sr. Lecturers, Professors & Lecturers, Professors & Sr. Lecturers and Readers & Lecturers. The t-ratio is presented in the second last column of the tables which shows whether there is a significant or non-significant difference between them. Tables also present means and standard deviations (S.DS). It may be noted that the t-values at 5% level of significance was given from the table for 12 d.f. and 8 d.f. are 2.18 and 2.31 respectively.

The result presented in different tables are discussed with the following headings.

1. Comparative Study For Professors & Readers :-

Visit to the Library:

As seen from the table 138 that t-ratio is 0.718 whereas the tabulated value of $t_{12} (0.05) = 2.18$ since calculated value of t is less than the tabulated value of t at 5% level of significance, we conclude that the hypothesis is accepted. There is no significant difference in respect of frequency of visit made to the library among Professors and Readers. The mean score of Professor and

Reader are 3.71 and 4.50 respectively whereas standard deviations are 1.90 and 1.91 respectively. Hence it is not significant.

Table - 138

***Table for t – Test
Professors & Readers***

Variables	Professors		Readers		t ratio	P
	Mean	S.D.	Mean	S.D.		
Visit the Library	3.71	1.90	4.5	1.91	0.718	NS
To get books issued	2.07	1.24	1.8	0.86	0.358	NS
To use Periodicals	1.86	2.47	1.98	0.91	0.091	NS
To use Reference Materials	2.29	0.88	2.34	0.95	0.077	NS
To Read Newspapers/ Magazines	2.79	1.2	3.05	0.96	0.339	NS
To use Audio-Visual Material	4.07	1.01	4.52	0.77	0.709	NS
To Browse Periodicals/ Books	2.36	1.04	2.62	1.15	0.274	NS
Frequency of Attending Conferences/Seminars/ Workshops/Lectures	2.29	0.96	2.44	1.01	0.196	NS

To get Books Issued:

As the above table shows that t-ratio is 0.358 whereas the tabulated value of $t_8(0.05) = 2.31$, since calculated value of t is less than the tabulated value of t at 5% level of significance, we conclude that the hypothesis is accepted. There is no significant difference in respect of frequency to get books issued among

Professors and Readers. The mean scores of Professors and Readers are 2.07 and 1.8 respectively whereas standard deviations are 1.24 and 0.86 respectively. Hence it is not significant.

To use Periodicals:

As the above table shows that t-ratio is 0.091 whereas the tabulated value of $t_8(0.05) = 2.31$, since calculated value of t is less than the tabulated value of t at 5% level of significance, we conclude that the hypothesis is accepted. There is no significant difference in respect of frequency to use periodicals among Professors and Readers. The mean scores of Professors and Readers are 1.86 and 1.98 respectively whereas standard deviations are 2.47 and 0.91 respectively. Hence it is not significant.

To use Reference Materials:

As the above table shows that t-ratio is 0.077 whereas the tabulated value of $t_8(0.05) = 2.31$, since calculated value of t is less than the tabulated value of t at 5% level of significance, we conclude that the hypothesis is accepted. There is no significant difference in respect of frequency to use reference materials among Professors and Readers. The mean scores of Professors and Readers are 2.29 and 2.34 respectively whereas standard deviations are 0.88 and 0.95 respectively. Hence it is not significant.

To read News Papers/Magazines:

As the above table shows that t-ratio is 0.339 whereas the tabulated value of $t_8(0.05) = 2.31$, since calculated value of t is less than the tabulated value of t at 5% level of significance, we conclude that the hypothesis is accepted. There is no significant difference in respect of frequency to read newspapers/magazines among Professors and Readers. The mean scores of Professors and Readers are 2.79 and 3.05 respectively whereas standard deviations are 1.2 and 0.96 respectively. Hence it is not significant.

To use Audio-Visual Material:

As the above table shows that t-ratio is 0.709 whereas the tabulated value of $t_8(0.05) = 2.31$, since calculated value of t is less than the tabulated value of t at 5% level of significance, we conclude that the hypothesis is accepted. There is no significant difference in respect of frequency to use audio-visual material among Professors and Readers. The mean scores of Professors and Readers are 4.07 and 4.52 respectively whereas standard deviations are 1.01 and 0.77 respectively. Hence it is not significant.

To Browse Periodicals/Books:

As the above table shows that t-ratio is 0.274 whereas the tabulated value of $t_8(0.05) = 2.31$, since calculated value of t is less than the tabulated value of t at 5% level of significance, we conclude that the hypothesis is accepted. There is no significant difference in respect of frequency to browse periodicals/books

among Professors and Readers. The mean scores of Professors and Readers are 2.36 and 2.62 respectively whereas standard deviations are 1.04 and 1.15 respectively. Hence it is not significant.

**Frequency of Attending Conference/Seminars/
Workshops/Lectures:**

As the above table shows that t-ratio is 0.196 whereas the tabulated value of $t_8 (0.05) = 2.31$, since calculated value of t is less than the tabulated value of t at 5% level of significance, we conclude that the hypothesis is accepted. There is no significant difference in respect of frequency of attending conference/seminars/workshops/lectures among Professors and Readers. The mean scores of Professors and Readers are 2.29 and 2.44 respectively whereas standard deviations are 0.96 and 1.01 respectively. Hence it is not significant.

2. Comparative Study For Sr. Lecturer & Lecturers :-

Visit to the Library:

As seen from the table 139 that t-ratios is 0.432 whereas the tabulated value of $t_{12} (0.05) = 2.18$, since calculated value of t is less than the tabulated value of t at 5% level of significance, we conclude that the hypothesis is accepted. There is no significant difference in respect of frequency of visit made to the library among Sr. Lecturers and Lecturers. The mean score of Sr. Lecturer & Lecturer are 3.73 and 3.19 respectively whereas standard

deviations are 2.09 and 2.24 respectively. Hence it is not significant.

Table – 139

Table for t – Test
Sr. Lecturers & Lecturers

Variables	Sr. Lecturers		Lecturers		t ratio	P
	Mean	S.D.	Mean	S.D.		
Visit the Library	3.73	2.09	3.19	2.24	0.432	NS
To get books issued	1.94	0.922	1.61	2.88	0.218	NS
To use Periodicals	2.06	2.195	1.99	1.006	0.058	NS
To use Reference Materials	2.29	0.92	2.41	0.938	0.183	NS
To Read Newspapers/ Magazines	3.08	1.08	3.17	1.14	0.072	NS
To use Audio-Visual Material	4.38	0.927	4.68	0.618	0.539	NS
To Browse Periodicals/ Books	2.79	1.2	2.45	1.13	0.413	NS
Frequency of Attending Conferences/Seminars/ Workshops/Lectures	2.44	0.955	2.83	1.14	0.525	NS

To get Books Issued:

As the above table shows that t-ratio is 0.218 whereas the tabulated value of $t_8 (0.05) = 2.31$, since calculated value of t is less than the tabulated value of t at 5% level of significance, we conclude that the hypothesis is accepted. There is no significant

difference in respect of frequency to get books issued among Sr. Lecturers and Lecturers. The mean scores of Sr. Lecturers and Lecturers are 1.94 and 1.61 respectively whereas standard deviations are 0.922 and 2.88 respectively. Hence it is not significant.

To use Periodicals:

As the above table shows that t-ratio is 0.058 whereas the tabulated value of $t_8(0.05) = 2.31$, since calculated value of t is less than the tabulated value of t at 5% level of significance, we conclude that the hypothesis is accepted. There is no significant difference in respect of frequency to use periodicals among Sr. Lecturers and Lecturers. The mean scores of Sr. Lecturers and Lecturers are 2.06 and 1.99 respectively whereas standard deviations are 2.195 and 1.006 respectively. Hence it is not significant.

To use Reference Materials:

As the above table shows that t-ratio is 0.183 whereas the tabulated value of $t_8(0.05) = 2.31$, since calculated value of t is less than the tabulated value of t at 5% level of significance, we conclude that the hypothesis is accepted. There is no significant difference in respect of frequency to use reference materials among Sr. Lecturers and Lecturers. The mean scores of Sr. Lecturers and Lecturers are 2.29 and 2.41 respectively whereas standard

deviations are 0.92 and 0.9388 respectively. Hence it is not significant.

To read News Papers/Magazines:

As the above table shows that t-ratio is 0.072 whereas the tabulated value of $t_8 (0.05) = 2.31$, since calculated value of t is less than the tabulated value of t at 5% level of significance, we conclude that the hypothesis is accepted. There is no significant difference in respect of frequency to read newspapers/magazines among Sr. Lecturers and Lecturers. The mean scores of Sr. Lecturers and Lecturers are 3.08 and 3.17 respectively whereas standard deviations are 1.08 and 1.14 respectively. Hence it is not significant.

To use Audio-Visual Material:

As the above table shows that t-ratio is 0.539 whereas the tabulated value of $t_8 (0.05) = 2.31$, since calculated value of t is less than the tabulated value of t at 5% level of significance, we conclude that the hypothesis is accepted. There is no significant difference in respect of frequency to use audio-visual material among Sr. Lecturers and Lecturers. The mean scores of Sr. Lecturers and Lecturers are 4.38 and 4.68 respectively whereas standard deviations are 0.927 and 0.618 respectively. Hence it is not significant.

To Browse Periodicals/Books:

As the above table shows that t-ratio is 0.413 whereas the tabulated value of $t_8 (0.05) = 2.31$, since calculated value of t is less than the tabulated value of t at 5% level of significance, we conclude that the hypothesis is accepted. There is no significant difference in respect of frequency to brows periodicals/books among Sr. Lecturers and Lecturers. The mean scores of Sr. Lecturers and Lecturers are 2.79 and 2.45 respectively whereas standard deviations are 1.20 and 1.13 respectively. Hence it is not significant.

Frequency of Attending Conference/Seminars/Workshops/Lectures:

As the above table shows that t-ratio is 0.525 whereas the tabulated value of $t_8 (0.05) = 2.31$, since calculated value of t is less than the tabulated value of t at 5% level of significance, we conclude that the hypothesis is accepted. There is no significant difference in respect of frequency of attending conferences/seminars/workshops/lectures among Senior Lecturers and Lecturers. The mean scores of Senior Lecturers and Lecturers are 2.44 and 2.83 respectively whereas standard deviations are 0.955 and 1.14 respectively. Hence it is not significant.

3. Comparative Study For Readers & Sr. Lecturers

Visit to the Library:

As seen from the table 140 that t-ratios is 0.666 whereas the

Table - 140
Table for t-Test
Readers & Senior Lecturers

Variables	Readers		Sr. Lecturers		t ratio	P
	Mean	S.D.	Mean	S.D.		
Visit the Library	4.5	1.91	3.73	2.09	0.666	NS
To get books issued	1.8	0.862	1.94	0.922	0.222	NS
To use Periodicals	1.98	0.91	2.06	2.195	0.067	NS
To use Reference Materials	2.34	0.9469	2.29	0.92	0.073	NS
To Read Newspapers/ Magazines	3.05	0.9626	3.08	1.08	0.042	NS
To use Audio-Visual Material	4.52	0.7687	4.38	0.9269	0.233	NS
To Browse Periodicals/ Books	2.62	1.15	2.79	1.2	0.205	NS
Frequency of Attending Conferences/ Seminars/ Workshops/Lectures	2.439	1.013	2.438	0.955	0.001	NS

tabulated value of $t_{12} (0.05) = 2.18$, since calculated value of t is less than the tabulated value of t at 5% level of significance, we conclude that the hypothesis is accepted. There is no significant difference in respect of frequency of visit made to the library among Readers and Senior Lecturers. The mean scores of Readers & Senior Lecturer are 4.5 and 3.173 respectively whereas standard deviations are 1.91 and 2.09 respectively. Hence it is not significant.

To get Books Issued:

As the above table shows that t-ratio is 0.222 whereas the tabulated value of $t_8 (0.05) = 2.31$, since calculated value of t is less

than the tabulated value of t at 5% level of significance, we conclude that the hypothesis is accepted. There is no significant difference in respect of frequency to get books issued among Readers and Senior Lecturers. The mean scores of Readers and Senior Lecturers are 1.8 and 1.94 respectively whereas standard deviations are 0.862 and 0.222 respectively. Hence it is not significant.

To use Periodicals:

As the above table shows that t -ratio is 0.067 whereas the tabulated value of $t_8(0.05) = 2.31$ since calculated value of t is less than the tabulated value of t at 5% level of significance, we conclude that the hypothesis is accepted. There is no significant difference in respect of frequency to use periodicals among Readers and Senior Lecturers. The mean scores of Readers and Senior Lecturers are 1.98 and 2.06 respectively whereas standard deviations are 0.91 and 2.195 respectively. Hence it is not significant.

To use Reference Materials:

As the above table shows that t -ratio is 0.073 whereas the tabulated value of $t_8(0.05) = 2.31$, since calculated value of t is less than the tabulated value of t at 5% level of significance, we conclude that the hypothesis is accepted. There is no significant difference in respect of frequency to use reference material among

Readers and Senior Lecturers. The mean scores of Readers and Senior Lecturers are 2.34 and 2.29 respectively whereas standard deviations are 0.9469 and 0.92 respectively. Hence it is not significant.

To read News Papers/Magazines:

As the above table shows that t-ratio is 0.042 whereas the tabulated value of $t_8(0.05) = 2.31$, since calculated value of t is less than the tabulated value of t at 5% level of significance, we conclude that the hypothesis is accepted. There is no significant difference in respect of frequency to read newspapers/magazines among Readers and Senior Lecturers. The mean scores of Readers and Senior Lecturers are 3.05 and 3.08 respectively whereas standard deviations are 0.9626 and 1.08 respectively. Hence it is not significant.

To use Audio-Visual Material:

As the above table shows that t-ratio is 0.233 whereas the tabulated value of $t_8(0.05) = 2.31$ since calculated value of t is less than the tabulated value of t at 5% level of significance, we conclude that the hypothesis is accepted. There is no significant difference in respect of frequency to use audio-visual material among Readers and Senior Lecturers. The mean scores of Readers and Senior Lecturers are 4.52 and 4.38 respectively whereas

standard deviations are 0.7687 and 0.9269 respectively. Hence it is not significant.

To Browse Periodicals/Books:

As the above table shows that t-ratio is 0.205 whereas the tabulated value of $t_8 (0.05) = 2.31$, since calculated value of t is less than the tabulated value of t at 5% level of significance, we conclude that the hypothesis is accepted. There is no significant difference in respect of frequency to browse periodicals/books among Readers and Senior Lecturers. The mean scores of Readers and Senior Lecturers are 2.62 and 2.79 respectively whereas standard deviations are 1.15 and 1.2 respectively. Hence it is not significant.

Frequency of Attending Conference/Seminars/ Workshops/Lectures:

As the above table shows that t-ratio is 0.001 whereas the tabulated value of $t_8 (0.05) = 2.31$, since calculated value of t is less than the tabulated value of t at 5% level of significance, we conclude that the hypothesis is accepted. There is no significant difference in respect of frequency of attending conference/seminars/workshops/lectures among Readers and Senior Lecturers. The mean scores of Readers and Senior Lecturers are 2.439 and 2.438 respectively whereas standard deviations are 1.013 and 0.955 respectively. Hence it is not significant.

4. Comparative Study For Professors & Lecturers :-

Table - 141
Table for t – Test
Professors & Lecturers

Variables	Professors		Lecturers		t ratio	P
	Mean	S.D.	Mean	S.D.		
Visit the Library	3.71	1.90	3.19	2.24	0.513	NS
To get books issued	2.07	1.24	1.61	2.88	0.294	NS
To use Periodicals	1.86	2.47	1.99	1.006	0.098	NS
To use Reference Materials	2.29	0.881	2.41	0.938	0.187	NS
To Read Newspapers/ Magazines	2.79	1.2	3.17	1.14	0.46	NS
To use Audio-Visual Material	4.07	1.01	4.68	0.618	1.03	NS
To Browse Periodicals/ Books	2.36	1.04	2.45	1.13	0.117	NS
Frequency of Attending Conferences /Seminar/ Workshops/Lectures.	2.29	0.958	2.83	1.144	0.73	NS

Visit to the Library:

As seen from the table 141 that t-ratios is 0.513 whereas the tabulated value of $t_{12} (0.05) = 2.18$ since calculated value of t is less than the tabulated value of t at 5% level of significance, we conclude that the hypothesis is accepted. There is no significant difference in respect of frequency of visit made to the library among Professor and Lecturers. The mean scores of Professor and

Lecturer are 3.71 and 3.19 respectively whereas standard deviations are 1.90 and 2.24 respectively. Hence it is not significant.

To get Books Issued:

As the above table shows that t-ratio is 0.294 whereas the tabulated value of $t_8(0.05) = 2.31$, since calculated value of t is less than the tabulated value of t at 5% level of significance, we conclude that the hypothesis is accepted. There is no significant difference in respect of frequency to get books issued among Professor and Lecturers. The mean scores of Professor and Lecturers are 2.07 and 1.61 respectively whereas standard deviations are 1.24 and 2.88 respectively. Hence it is not significant.

To use Periodicals:

As the above table shows that t-ratio is 0.098 whereas the tabulated value of $t_8(0.05) = 2.31$ since calculated value of t is less than the tabulated value of t at 5% level of significance, we conclude that the hypothesis is accepted. There is no significant difference in respect of frequency to use periodicals among Professor and Lecturers. The mean scores of Professor and Lecturers are 1.86 and 1.99 respectively whereas standard deviations are 2.47 and 1.006 respectively. Hence it is not significant.

To use Reference Materials:

As the above table shows that t-ratio is 0.187 whereas the tabulated value of $t_8 (0.05) = 2.31$, since calculated value of t is less than the tabulated value of t at 5% level of significance, we conclude that the hypothesis is accepted. There is no significant difference in respect of frequency to use reference material among Professor and Lecturers. The mean scores of Professor and Lecturers are 2.29 and 2.41 respectively whereas standard deviations are 0.881 and 0.938 respectively. Hence it is not significant.

To read News Papers/Magazines:

As the above table shows that t-ratio is 0.46 whereas the tabulated value of $t_8 (0.05) = 2.31$, since calculated value of t is less than the tabulated value of t at 5% level of significance, we conclude that the hypothesis is accepted. There is no significant difference in respect of frequency to read newspapers/magazines among Professor and Lecturers. The mean scores of Professor and Lecturers are 2.79 and 3.17 respectively whereas standard deviations are 1.20 and 1.41 respectively. Hence it is not significant.

To use Audio-Visual Material:

As the above table shows that t-ratio is 1.03 whereas the tabulated value of $t_8 (0.05) = 2.31$, since calculated value of t is less

than the tabulated value of t at 5% level of significance, we conclude that the hypothesis is accepted. There is no significant difference in respect of frequency to use audio-visual material among Professor and Lecturers. The mean scores of Professor and Lecturers are 4.07 and 4.68 respectively whereas standard deviations are 1.01 and 0.618 respectively. Hence it is not significant.

To Browse Periodicals/Books:

As the above table shows that t -ratio is 0.117 whereas the tabulated value of $t_8 (0.05) = 2.31$, since calculated value of t is less than the tabulated value of t at 5% level of significance, we conclude that the hypothesis is accepted. There is no significant difference in respect of frequency to browse periodicals/books among Professor and Lecturers. The mean scores of Professor and Lecturers are 2.36 and 2.45 respectively whereas standard deviations are 1.04 and 1.13 respectively. Hence it is not significant.

Frequency of Attending Conference/Seminars/

Workshops/Lectures:

As the above table shows that t -ratio is 0.73 whereas the tabulated value of $t_8 (0.05) = 2.31$, since calculated value of t is less than the tabulated value of t at 5% level of significance, we conclude that the hypothesis is accepted. There is no significant

difference in respect of frequency of attending conferences/seminars/workshops/lectures among Professor and Lecturers. The mean scores of Professor and Lecturers are 2.29 and 2.83 respectively whereas standard deviations are 0.958 and 1.144 respectively. Hence it is not significant.

5. Comparative Study For Professors & Sr. Lecturers :-

Visit to the Library:

As seen from the table 142 that t-ratios is 0.017 whereas the tabulated value of $t_{12} (0.05) = 2.18$, since calculated value of t is less than the tabulated value of t at 5% level of significance, we conclude that the hypothesis is accepted. There is no significant difference in respect of frequency of visit made to the library among Professors and Senior Lecturers. The mean scores of Professor and Senior Lecturer are 3.71 and 3.73 respectively whereas standard deviations are 1.90 and 2.09 respectively. Hence it is not significant.

To get Books Issued:

As the above table shows that t-ratio is 0.169 whereas the tabulated value of $t_8 (0.05) = 2.31$, since calculated value of t is less than the tabulated value of t at 5% level of significance, we conclude that the hypothesis is accepted. There is no significant difference in respect of frequency to get books issued

Table – 142
Table for t – Test
Professors & Senior Lecturer

Variables	Professors		Sr. Lecturers		t ratio	P
	Mean	S.D.	Mean	S.D.		
Visit the Library	3.71	1.90	3.73	2.09	0.017	NS
To get books issued	2.07	1.24	1.94	0.922	0.169	NS
To use Periodicals	1.86	2.47	2.06	2.196	0.121	NS
To use Reference Materials	2.29	0.881	2.292	0.92	0.009	NS
To Read Newspapers/ Magazines	2.79	1.2	3.08	1.08	0.359	NS
To use Audio-Visual Material	4.07	1.01	4.38	0.927	0.453	NS
To Browse Periodicals/ Books	2.36	1.04	2.79	1.2	0.542	NS
Frequency of Attending Conferences/Seminars/ Workshops/Lectures	2.29	0.958	2.44	0.955	0.296	NS

among Professors and Senior Lecturers. The mean scores of Professor and Senior Lecturer are 2.07 and 1.94 respectively whereas standard deviations are 1.24 and 0.922 respectively. Hence it is not significant.

To use Periodicals:

As the above table shows that t-ratio is 0.121 whereas the tabulated value of $t_8 (0.05) = 2.31$, since calculated value of t is less than the tabulated value of t at 5% level of significance, we

conclude that the hypothesis is accepted. There is no significant difference in respect of frequency to use periodicals among Professors and Senior Lecturers. The mean scores of Professor and Senior Lecturer are 1.86 and 2.06 respectively whereas standard deviations are 2.47 and 2.196 respectively. Hence it is not significant.

To use Reference Materials:

As the above table shows that t-ratio is 0.009 whereas the tabulated value of $t_8 (0.05) = 2.31$, since calculated value of t is less than the tabulated value of t at 5% level of significance, we conclude that the hypothesis is accepted. There is no significant difference in respect of frequency to use reference materials among Professors and Senior Lecturers. The mean scores of Professor and Senior Lecturer are 2.29 and 2.292 respectively whereas standard deviations are 0.881 and 0.92 respectively. Hence it is not significant.

To read News Papers/Magazines:

As the above table shows that t-ratio is 0.359 whereas the tabulated value of $t_8 (0.05) = 2.31$, since calculated value of t is less than the tabulated value of t at 5% level of significance, we conclude that the hypothesis is accepted. There is no significant difference in respect of frequency to read newspapers/magazines among Professors and Senior Lecturers. The mean scores of

Professor and Senior Lecturer are 2.79 and 3.08 respectively whereas standard deviations are 1.20 and 1.08 respectively. Hence it is not significant.

To use Audio-Visual Material:

As the above table shows that t-ratio is 0.453 whereas the tabulated value of $t_8 (0.05) = 2.31$, since calculated value of t is less than the tabulated value of t at 5% level of significance, we conclude that the hypothesis is accepted. There is no significant difference in respect of frequency to use audio-visual material among Professors and Lecturers. The mean scores of Professor and Lecturers are 4.07 and 4.38 respectively whereas standard deviations are 1.01 and 0.927 respectively. Hence it is not significant.

To Browse Periodicals/Books:

As the above table shows that t-ratio is 0.542 whereas the tabulated value of $t_8 (0.05) = 2.31$, since calculated value of t is less than the tabulated value of t at 5% level of significance, we conclude that the hypothesis is accepted. There is no significant difference in respect of frequency to browse periodicals/books among Professors and Lecturers. The mean scores of Professor and Lecturers are 2.36 and 2.79 respectively whereas standard deviations are 1.04 and 1.20 respectively. Hence it is not significant.

**Frequency of Attending Conference/Seminars/
Workshops/Lectures:**

As the above table shows that t-ratio is 0.296 whereas the tabulated value of $t_8 (0.05) = 2.31$, since calculated value of t is less than the tabulated value of t at 5% level of significance, we conclude that the hypothesis is accepted. There is no significant difference in respect of frequency of attending conferences/seminars/workshops/lectures among Professors and Lecturers. The mean scores of Professor and Lecturers are 2.29 and 2.49 respectively whereas standard deviations are 0.958 and 0.955 respectively. Hence it is not significant.

**6. Comparative Study For Readers & Lecturers :
Visit to the Library:**

As seen from the table 143 that t-ratios is 0.582 whereas the tabulated value of $t_{12} (0.05) = 2.18$, since calculated value of t is less than the tabulated value of t at 5% level of significance, we conclude that the hypothesis is accepted. There is no significant difference in respect of frequency of visit made to the library among Readers and Lecturers. The mean scores of Readers and Lecturers are 4.5 and 3.19 respectively whereas standard deviations are 1.91 and 2.24 respectively. Hence it is not significant.

To get Books Issued:

As the table shows that t-ratio is 0.127 whereas the tabulated value of $t_8 (0.05) = 2.31$, since calculated value of t is less

Table - 143

*Table for t – Test
Readers & Lecturers*

Variables	Readers		Lecturers		t ratio	P
	Mean	S.D.	Mean	S.D.		
Visit the Library	4.5	1.91	3.19	2.24	0.582	NS
To get books issued	1.8	0.86	1.61	2.88	0.127	NS
To use Periodicals	1.98	0.91	1.99	1.006	0.015	NS
To use Reference Materials	2.34	0.947	2.41	0.938	0.105	NS
To Read Newspapers/ Magazines	3.05	0.963	3.17	1.14	0.161	NS
To use Audio-Visual Material	4.52	0.769	4.68	0.618	0.325	NS
To Browse Periodicals/ Books	2.62	1.15	2.45	1.13	0.211	NS
Frequency of Attending Conferences/Seminars/ Workshops/Lectures	2.44	1.013	2.83	1.144	0.511	NS

than the tabulated value of t at 5% level of significance, we conclude that the hypothesis is accepted. There is no significant difference in respect of frequency to get books issued among Readers and Lecturers. The mean scores of Readers and Lecturers are 1.8 and 1.61 respectively whereas standard deviations are 0.86 and 0.2.88 respectively. Hence it is not significant.

To use Periodicals:

As the above table shows that t-ratio is 0.015 whereas the tabulated value of $t_8(0.05) = 2.31$, since calculated value of t is less than the tabulated value of t at 5% level of significance, we conclude that the hypothesis is accepted. There is no significant difference in respect of frequency to use periodicals among Readers and Lecturers. The mean scores of Readers and Lecturers are 1.98 and 1.99 respectively whereas standard deviations are 0.910 and 1.006 respectively. Hence it is not significant.

To use Reference Materials:

As the above table shows that t-ratio is 0.105 whereas the tabulated value of $t_8(0.05) = 2.31$, since calculated value of t is less than the tabulated value of t at 5% level of significance, we conclude that the hypothesis is accepted. There is no significant difference in respect of frequency to use reference materials among Readers and Lecturers. The mean scores of Readers and Lecturers are 2.34 and 2.41 respectively whereas standard deviations are 0.947 and 0.938 respectively. Hence it is not significant.

To read News Papers/Magazines:

As the above table shows that t-ratio is 0.161 whereas the tabulated value of $t_8(0.05) = 2.31$, since calculated value of t is less than the tabulated value of t at 5% level of significance, we conclude that the hypothesis is accepted. There is no significant

difference in respect of frequency to read newspapers/magazines among Readers and Lecturers. The mean scores of Readers and Lecturers are 3.05 and 3.17 respectively whereas standard deviations are 0.963 and 1.14 respectively. Hence it is not significant.

To use Audio-Visual Materials:

As the above table shows that t-ratio is 0.325 whereas the tabulated value of $t_{\alpha}(0.05) = 2.31$, since calculated value of t is less than the tabulated value of t at 5% level of significance, we conclude that the hypothesis is accepted. There is no significant difference in respect of frequency to use audio-visual materials among Readers and Lecturers. The mean scores of Readers and Lecturers are 4.52 and 4.68 respectively whereas standard deviations are 0.769 and 0.618 respectively. Hence it is not significant.

To Browse Periodicals/Books:

As the above table shows that t-ratio is 0.211 whereas the tabulated value of $t_{\alpha}(0.05) = 2.31$, since calculated value of t is less than the tabulated value of t at 5% level of significance, we conclude that the hypothesis is accepted. There is no significant difference in respect of frequency to browse periodicals/books among Readers and Lecturers. The mean scores of Readers and Lecturers are 2.62 and 2.45 respectively whereas standard

deviations are 1.15 and 1.13 respectively. Hence it is not significant.

Frequency of Attending Conference/Seminars/

Workshops/Lectures:

As the above table shows that t-ratio is 0.511 whereas the tabulated value of $t_8 (0.05) = 2.31$, since calculated value of t is less than the tabulated value of t at 5% level of significance, we conclude that the hypothesis is accepted. There is no significant difference in respect of frequency of attending conferences/seminars/lectures/workshops among Readers and Lecturers. The mean scores of Readers and Lecturers are 2.44 and 2.83 respectively whereas standard deviations are 1.013 and 1.144 respectively. Hence it is not significant.

CHAPTER – 5

DISCUSSION

SHIP

(N)

CS

HI

DISSCUSION

Visit To The Library:

The result of the present studies indicates that 81 (28.03%) respondents visit their library daily, 32 (11.07%) respondents visit their library more than once a week, 42 (14.53%) respondents visit their library once a week, 5 (1.73%) fortnightly and 06 (2.08%) visit library monthly.

Further, 119 (41.8%) respondents visit their library when there is need and 4 (1.38%) visit the library rarely. Whereas the studies by Ashu Shokein and Sanjay Kumar (2000) indicate that 101 (32.06%) social scientists visit their library daily.

Purpose Of The Visit:

It is revealed from the results of the present study that 126 respondents visit their library very frequently to get the books issued. 103 respondents visit the library to use periodicals and 67 respondents visit the library to use research material very frequently. 29 respondents visit the library to use newspapers/magazines very frequently while 109 respondents visit the library to use newspapers/magazines sometimes. A majority of 197 respondents never visit the library to use audio/visual material.

103 respondents visit the library frequently to browse periodicals and books. The results of studies carried by Ashu Shokein and Sanjay Kumar (2000), found that 46.03% users

mentioned that the major reason for visiting library was to get books issued while 44.44% users reported that they visit the library for using reference material frequently while 31.48% users visited the library for periodicals.

Sources Of Information:

Books and Reference Books:

The present study show that 275 (95.16%) respondents preferred books and 238 (82.35%) respondents preferred reference books. The results are supported by Ashu Shokein and Sanjay Kumar (2000) that 93 respondent gave first priority to books, 149 responents gave second priority, 48 respondent gave third priority to books and 15 respondent fourth priority to books. Total 305 respondent preferred books. Guha (1992) maintained that 27.2% respondents preferred books.

Journals:

In the present study, a majority of respondents 100 (69.20%) mentioned abstracting journals and 132 (45.67%) mentioned Industry Journals. Agarwal and Chakraborty (1995) reported that second important source was mentioned indexing and abstracting journals. Prasad and Tripathi (1998) found Journals as the most frequently used source of information among the social scientists.

Periodicals:

In the present study, a majority of respondent 197 (68.17%) mentioned periodicals the similar results were reported in some

studies, such as Ashu Shokein and Sanjay Kumar (2000) found that 62.54% respondent preferred periodicals. Korah and Deverajan (1991) reported that current periodicals were the most important source of information.

Research Report:

The present results indicate the 197 (68.17%) respondents printed out research report. The result of studies carried by Ashu Shokein and Sanjay Kumar (2000) found that 101 respondents printed out dissertation/thesis as their fifth priority, 66 respondents printed out dissertation/thesis as their fourth priority, only 6 (1.9%) respondents printed out first priority. Total 70.79% respondents preferred dissertation/thesis.

Newspaper Files:

182 (62.98%) respondents indicated their preference for the newspaper files.

Document and Official Documents:

In the present study a majority of respondents 128 (44.29%) preferred documents and 115 (39.29%) preferred official documents.

Proceedings of conference/seminars:

The present study, show that 171 (59.1%) respondents preferred proceedings of conference and seminars. The results are supported by Ashu Shokein and Sanjay Kumar (2000) that 79

respondents mentioned fifth priority to conference proceedings whereas 37, 25, 9 and 5 respondents showed their fourth, third, second and first priority. However, Guha (1992) revealed that 11.4% respondents showed their first preference for conference proceedings.

Usefulness Of Library Service:

Circulation service is considered little useful by 127 respondents. 111 respondents considered circulation service as very useful, whereas only 51 respondents considered this service not useful at all. 116 respondents considered reference service to be little useful while 103 respondents considered this service to be very useful and 70 respondents considered it not useful at all. 163 respondents consider indexing service not useful at all, 87 respondents consider it to be little useful and only 39 respondents considered it to be very useful. In case of abstracting services, 219 respondents considered this service to be not useful at all, 43 respondents considered this service to be little useful while only 27 respondents considered this service to be very useful. 128 respondents ranked the photocopying services to be not useful at all, 120 respondents ranked this service to be little useful whereas only 41 respondents ranked this service to be very useful. 117 respondents mentioned the current awareness service to be little useful, 98 respondents mentioned this service to be not useful at all while only a total of 74 respondents mentioned this service to be

very useful. The results of the previous study are also of the same nature. Krishna Reddy and Karisidappa (1997) found that indexing and abstracting services and the computer aided services are less frequently used services. Ashu Shokein and Sanjay Kumar (2000) found that circulation service is the most frequently used service.

Use Of Computer Service:

The results of the present study reveal that the use of computerized service by the teachers of Bundelkhand University is very low. Only 19.03% teachers use computerized service. 22.22% respondents search the literature within the library, 7.94% respondents search the literature through local network, 25.40% respondents search the literature through natural network and 44.44% respondents search the literature through international network.

Krishna Reddy and Karisiddappa, (1997) and Ashu Shokein and Sanjay Kumar (2000) also mentioned in their studies that computer aided services are less utilized.

Purpose Of Using Periodicals:

The results of the present study reveal that a maximum number of teachers of Bundelkhand University use periodicals for the purpose of updating knowledge. 64.01% (185) respondents frequently used periodicals for updating knowledge, 51.21% (148)

respondents used the periodicals for the purpose of research work, 46.71% (135) respondents used the periodicals for the purpose of teaching work and 39.45% (114) respondents used the periodicals for general awareness purpose.

The studies by Ashu Shokein and Sanjay Kumar (2000) revealed that a maximum of social scientists most frequently use periodicals for general awareness. Agarwal and Chakraborty (1995) revealed that 89.32% scholars consult primary periodicals for keeping abreast of current developments in their respective field of study.

Helpfulness Of Librarian And His Staff:

The results of the present study indicate that 94 respondents mentioned that the librarian and his staff of college libraries and university library of Bundelkhand region are always helpful. 81 respondents mentioned that they are helpful sometimes, 57 respondents said they are often helpful, 45 respondents reported them to be rarely helpful while 12 respondents reported them to be never helpful. However, Sanjeev Kumar and Mishra (1992) revealed that library staff was found helpful by an overwhelming majority (66.66%) of respondents. Singh (1995) maintained that a majority of respondents found library staff as helpful. Adedien and Adio (1997) found that all the respondents agreed that the library staff is always willing to assist. Ashu Shokein and Sanjay Kumar

(2000) revealed that a majority of 133 respondents found the librarian and his staff often helpful.

Assessment Of Arrangement Of Library Opening Hours:

In the present study 52 and 64 respondents informed the library opening hours to be very convenient and fairly convenient respectively. 136 and 32 respondents informed that the library opening hours were convenient and inconvenient while 5 respondents informed the library opening hours to be very inconvenient. Some earlier studies also reported the similar results. Ashu Shokein and Sanjay Kumar (2000) found that arrangement of library opening hours was assessed as very convenient by 20% respondent as fairly convenient by 31.75% and as convenient 36.51% respondent. Singh (1995) reported that a majority of respondents assessed the library opening hours were convenient.

Assessment Of Library Collection:

It is revealed from the results of the present study that 14, 56 and 69 respondents use the library collection upto 100%, 90% and 75% respectively. 89, 44 and 17 respondents use the library collection upto 50%, 25% and less than 25% respectively. 41 and 34 respondents considered their respective library collection to be excellent and very adequate, while 98 and 74 respondents reported their respective college library collection to be adequate and inadequate and 42 respondents reported this to be poor.

However, Prasad and Tripathi (1998) reported that 100% social scientists were very much dissatisfied with information sources and services the library and the whole library needs to be improved tremendously. However, Singh (1995) found that a majority of respondents feel their library collection as good and Ashu Shokein and Sanjay Kumar (2000) found that a majority of 160 respondents consider literature of their respective universities to be adequate.

REFERENCES

1. KRISHNA REDDY (S H) and KARISIDDAPPA (C R), Information Seeking Behaviour of the professionals in the field of disabilities with special reference to mental handicap in India. *Annals of Library Science and Documentation*. 44 (2); June 1997; 54 – 64.
2. PRASAD (H N) and TRIPATHI (Manorama). Information Seeking Behaviour of Physical scientists and social scientists : A report. *Annals of Library Science and Documentation*. 45 (2); June 1998; 41 – 48.
3. SINGH (S P). Survey of Indian Institute of Technology Library, Madras. *Journal of Library and Information Science*. 20 (1 – 2); June – December 1995; 1 – 33.
4. ASHU SHOKEIN and SANJAY K KAUSHIK. Information Seeking Behaviour of social scientists of Haryana University. 2000; 183 – 190.
5. GUHA (B). Information Seeking and communication behaviour of Indian scientists : NISSAT study. *NISSAT newsletter*. 1; 1993; 18 – 22.
6. ADEDIBU (L O) and ADIO (Gboyega). Information needs and Information Seeking patterns of medical

- students at Lautech, Ogbomoso. Aslib proceedings. 49 (9); October 1997; 238 – 242.
7. KORAH (Acceamma C) and DEVARAJAN (G). Information needs and use patterns of Rubber scientists. IASLIC Bulletin. 36 (3); September 1991; 89 – 94.
 8. AGGRAWAL (Anil) and CHAKRABORTY (H K). Information need and use pattern of Earth Science scholars of Banaras Hindu University. Indian Journal of Information, Library & Society. 8 (3 – 4); July – December 1995; 219 – 227.

CHAPTER – 6

CONCLUSION AND SUGGESTIONS

CONCLUSION

The hypotheses in present study are being tested whether they stand accepted/proved or rejected/disapproved. The following are the hypotheses of the study.

The Hypotheses Of The Study

1. Teachers from different colleges and University of Bundelkhand region have training in the Methodology for information access and know how to collect material /
2. Teachers of different colleges of Bundelkhand University devote a lot of time in searching information.
3. Teachers seek current information to keep themselves up to date in their specific field.
4. Most of the teachers of the colleges in different fields use their college library or University library only.
5. They feel satisfied by the resources available and the services rendered by their respective libraries.
6. They are effectively & judicially utilizing the library service.
7. Books are the most used documents by teachers, followed by reference books & periodicals.
8. Most of the college teachers use indexing and abstracting services and sources.

9. Computerised services are provided by some of the college libraries & university library.
10. Audio/visual services are provided by some university library only.
11. Photocopying and current services are provided by the college libraries & university library.

Hypothesis 1

Persual of several tables namely table 38-52 reveals that teachers in different colleges of Bundelkhand university in different fields know how to collect the material related to their problem and sources of information.

Table No.3 indicates that 30.80% frequently use the abstracting journals whereas 53.98% never use abstracting journals. They also consult their seniors, colleges and library staff. The hypothesis 1 stands accepted or we can say the findings of present study prove this hypothesis.

Hypothesis 2

It may be noted by tables no.1 and 2 that teachers in different colleges in the field of arts, science engineering and medical sciences visit the library to search the required information. Table 39 highlights that in addition to search the required information in their institutional libraries they also visit other libraries for using periodicals.

During the interview of senior teachers of different colleges in arts, science & Medical and Bundelkhand University Investigator found that they usually go to Gwalior, Agra and New Delhi for collecting their material.

It also indicates that computerized services are being used by a very small number of teachers. This also shows that since they have to search their information manually thus they have to spend more time for searching the information. Thus, the second hypothesis of the present study is also supported by the findings.

Hypothesis 3

It is evident from Table 36 that the majority of teachers visit library frequently to use periodicals for updating their knowledge. Hence the hypothesis stands proved. In other words the study of the present table justifies the hypothesis formulated by the investigator.

Hypothesis 4

Table – indicates that the use of other libraries by the teachers of different colleges. Even through interviews, it is observed that the teachers in different fields like arts, science engineering, medical and commerce make use of other libraries in addition to their college libraries. Thus their hypothesis is rejected. In other words, the findings of the present study disapprove this hypothesis.

Hypothesis 5

Figure 4.7 reveals that 98 (33-91%) respondents consider the collection of their respective library as adequate. 41 (14-91%) respondents consider their library's collection as excellent. Only 74 (25.61%) and 42 (14.53%) respondents consider the collection of their library as inadequate and poor respectively. Whereas 34 (11.76%) respondents found their library collection very adequate. It may be noted that from table 81 service provided by different libraries of the region are considered useful by the teachers. From the interviews of teachers of different fields it came in to light that they are satisfied to some extent with the services provided by university library or college libraries. But on the other hand, they showed that they need more services such as computerized services, Online services translation services indexing and abstracting services. Thus it was observed that these services are rarely proved by the libraries of different district of Bundelkhand region. Thus the fifth hypothesis is supported by the finding of the study.

Hypothesis 6

The perusal of table 81 reveals that the services provided by the different college libraries and Bundelkhand University Library in the Bundelkhand region are being utilized by the teachers of this region. But table 88 indicates that only 55 (19.03%) respondents use computerized service which is very low. This may be because of that the computerized services are less provided by the libraries

of this region as observed by the investigator. Thus this hypothesis is partially accepted and partially rejected by the findings of the present study.

Hypothesis 7 (Use of periodicals & books)

A majority of respondents 5185 (64.01%) mentioned use of periodicals as their first priority for updating knowledge here as 148 (51.21%) respondents indicate their second priority to the use of periodicals for research. 135 (46.71%) respondents use periodicals for teaching work and 114 (39.45%) respondents use periodicals for current awareness. Table 37 indicates the majority of respondents 275 (95.16%) mentioned books as their first priority whereas 238 (82.35%) respondents indicate their second priority to reference books and 197 (68.17%) mentioned their third priority to periodicals. Thus the seventh hypothesis study proved ?

Hypothesis 8

It is evident from table 53 that 39 (13.49%) respondents use indexing journals very frequently and 38 (13.15%) respondents use indexing journals frequently whereas 156 (53.98%) respondents never use indexing journals and 56 (19.38%) respondents use indexing journals frequently whereas 57 (19.72%) use abstracting journals sometimes. It was observed by the investigator that indexing service from table 3, 39 (13.48%) respondents visit library to use this service. It was observed that indexing service in

different college libraries university library of Bundelkhand region is at very small scale. It is evident from table 73, 31(10.73%) respondents use abstracting service which is the smallest in this reason in other words, abstracting service is provided by very few college libraries and university library is the different district of Bundelkhand region.

Then the hypothesis 8 is accepted.

Hypothesis 9

It is evident from table 88 that 55 (19.03%) respondents use computerized services. It is also clear that no teacher is getting issue/return of books by computer.

The perusal of table 88 and table 89 reveals that computerized services are less provided by the college libraries and university library itself. The data required from the colleges & university libraries also indicate that they are in the process of computer rates of their libraries. INTERNET service and E mail service is provided by engineering college library, medical college library university library and D.V. college Orai library. Thus the 9th hypothesis is supported by the results of the present study.

Hypothesis 10

Table 1 indicates that audio-visual service is provided by only engineering college library and university library. This service is open only for specific users.

Table 36 shows that only 2 respondents (.69%) very frequently use audio – visual material, 7 (2.4%) respondents frequently, 16 (5.54%) respondents use sometimes and 67 (23.18%) respondents use rarely. But 197 (68.17%) respondents never use the audio – visual material.

Thus hypothesis no.10 is supported by the result of the present study.

Hypothesis 11 :-

Table 81 indicates that circulation service is the most useful services. 111 (38.41%) respondents reported this service to be very useful and 127 (43.94%) respondents reported it to be little useful. Photocopy service and current awareness services provided by some college libraries and university library are more than indexing services and abstracting services provided by some college and university libraries.

Summary Of Findings :-

(1) Library Visit :

- i) Majority of different college and university teachers. i.e. 69.21% visit their institutional library when needed or daily. (Table 24)
- ii) Non PhD teachers visited the library more frequently than PhD teachers. (Table 25)

iii) Different college teachers and university teachers between the age group of below 35 and 36-45 visited the library daily than other age groups. (Table 26)

(2) ***Cause of not using Library Frequently :***

Majority of teachers in case of not using the library i.e. 37 (02%) is due to the non availability of reading materials of their interest. (Table 27)

(3) ***General Visiting Hours :***

Majority of the different college teachers and university teachers be 69.89% generally visit the library is between 12-2 pm and 2-4 pm. (Table 30)

(4) ***Time Spend in the Library :***

Most of the different college and university teachers i.e. 61 (94%) spend 30-60 minutes or more than one hour in the library. (Table 33)

(5) ***Purpose of Visits :***

i) The purpose of visit of the majority of teachers to the library is to get books issued and to use periodicals. (Table 36)

ii) Books are the most important sources of information followed by reference books and periodicals. (Table 37)

(6) *Source of Information :*

- i) Agriculture, law medical and engineering teachers have made more use of books than other disciplines. (Table 38)
- ii) Medical, engineering and agriculture teachers have made more use of periodicals, as compared to teachers belonging to other disciplines (Table 39).
- iii) Law, Commerce, Science and Art teachers have made more use of news paper files as compared to teachers belonging to other disciplines. (Table 48)
- iv) Science Medical and Law teachers have made more use of Doctoral dissertations than other disciplines. (Table 42)
- v) Engineering, Law and Science teachers have made more use of reference books than other disciplines. (Table 43)
- vi) Engineering teachers have made more use of documents as compared to teachers belonging to other disciplines.
(Table 44)
- vii) Agriculture teachers have made more use maps as compared to teachers belonging to other disciplines.
(Table 47)
- viii) Engineering, Commerce and Science teachers have made more use of statistical tables as compared to teachers belonging to other disciplines. (Table 48)

ix) Engineering, Science and Agriculture teachers have made more use of proceedings of conference/seminars as compared to teachers belonging to other disciplines. (Table 49)

x) Engineering, Law and Agriculture teachers have made more use of survey Articles as compared to teachers belonging to other disciplines. (Table 51)

xi) Engineering and Law teachers have made more use of official documents as compared to teachers belonging to other disciplines. (Table 52)

xii) Commerce teachers have made use of abstracting journals more frequently as compared to social scientists. (Table 54)

xiii) Law teachers have made more use of Indexing journal, research reports and books, monographs etc. More frequently as compared to teachers belonging to other disciplines. (Tables 55, 56 and 58)

xiv) Majority of teachers told that their rank of Ist priority to access journals from their library of the concerned Institute. (Table 108)

xv) The major purpose of using Journals is updating knowledge. (Table 93)

(7) *Service Provided by the Library*

- i) Reference service and circulation service is most availed service. (Table 73).
- ii) Circulation service has been found more useful by the teachers of Mahoba, Karvi, Lalitpur and Hamirpur district as compared to teachers of Jhansi, Banda and Jalaun districts. (Table 74)
- iii) Reference service has been found more useful by the teachers of Mahoba, Karvi, Lalitpur and Hamirpur district as compared to teachers of Jhansi, Banda and Jalaun districts. (Table 75)
- iv) Indexing service has been availed more by teachers from Mahoba and Jalaun districts as compared to the teachers of other districts. (Table 76)
- v) Photocopy service has been availed by a large number of teachers of Mahoba, Karvi and Banda districts as compared to teachers of other districts. (Table 78)
- vi) Current awareness service has been availed by a large number of teachers of Mahoba and Lalitpur districts as compared to teachers of other districts. (Table 79)

(8) *Searching*

- i) Majority of teachers are able to keep update with the advance in their field to some extent. (Table 70).

- ii) Different college teachers and university teachers of Medical, Art and Science search information through indexing and abstracting periodicals as Ist priority as compared to teachers belonging to other disciplines. (Table 104)
 - iii) Engineering teachers have given Ist priority to citation article as compared to teachers belonging to other disciplines. (Table 105)
- (9) ***Conferences/Seminars/Lectures/Workshops etc.***
- Majority of teachers attend conferences/seminars/lectures/workshops etc. some times (Table 118)
- (10) ***Library Collection***
- i) Library collection is assessed as very adequate and adequate by a majority of teachers. (Figure 4.7).
 - ii) Library collections of Lalitpur, Jhansi and Mahoba districts have been assessed as very adequate by the teachers adequately than that of Banda, Jalaun, Hamirpur and Karvi. (Table 123)
 - iii) Majority of teachers were of the opinion that library collections should be 50% used. (Figure 4.12)
 - iv) The teachers of Karvi, Jalaun, Banda and Jhansi districts have been found to use 50% library collection as compared to the teachers of other districts. (Table 128)

(11) *Library Staff*

- i) Library staff of all the libraries have been found always helpful. (Figure 4.10)
- ii) Library staff of Karvi, Jhansi and Hamirpur districts has always been found more helpful than that of Banda, Jalaun, Lalitpur and Mahoba districts. (Table 126)

(12) *Opening Hours*

- i) Opening hours of all the college and university libraries have been found convenient. (Figure 4.11)
- ii) The teachers of Banda, Mahoba, Jalaun and Hamirpur district have found opening hours more convenient as compared to teachers of other districts. (Table 127)

(13) *Training Programs*

- i) Majority of teachers were of the opinion that libraries should provide training programs to some extent. (Figure 4.13)
- ii) The teachers of Mahoba, Banda and Jalaun districts were of the opinion that libraries should provide training programmes upto some extent as compared to teachers of other districts. (Table 129)

It should be noted that if teachers do not acquire proper information seeking skills, they might not get their relevant information. Teachers who lack the skills to identify and locate information may not know how to locate and obtain good quality

resources for teaching, and then the quality of instruction for students would be adversely affected. The teachers may be seeking for the minimum or whatsoever is most easily or quickly available. Furthermore, these teachers may also fail to impart proper information searching skills to their students.

RECOMMENDATIONS

The study investigated the information needs and information – seeking behaviour of teachers of Bundelkhand University. It was found that respondents used a variety of information sources for teaching and research. Books followed by Reference books and periodicals are considered as the most preferred information sources. It is also noted that a considerable number of respondents also visit certain other libraries, which are quite far from their libraries.

The study revealed that the respondents used. It based library sources and facilities less frequently compared with printed sources. It might be due to the lack of availability, awareness or unfamiliarity.

Lack of time was one of the major limiting factors in the information seeking process. Most of the respondents use library when they are in need, means they are not regular visitors of the library. Other respondents who are regular visitors spent very little time in library. Teachers doing research visit library more frequently than others. Majority of the teachers who are not using library is due to the inadequate collection.

All this leads to proper attention and keen interest on the part of librarians and administrators to introduce following measures in their respective libraries :-

(1) The libraries should expand the availability of relevant material and seek the opinion of users (teachers) in the selection of library materials. The involvement of users in the selection process is expected to help develop library collections, which are more relevant to their information needs. Similarly, such involvement may also result in higher user satisfaction.

(2) Having a large collection of resources would not necessarily solve these problems. The resources should be systematically catalogued and regularly shelved to facilitate accessibility.

(3) Resource sharing is one of the way to increase the availability of information to the teachers. Therefore, it is hereby suggested that all the libraries of the region should be interlinked by networks and the union catalogues and computerized databases of their collections should be developed.

(4) Most of the libraries of the Bundelkhand region are providing only general type of services i.e. Circulation and Reference. To make information more accessible to teachers information services such as CAS, SDI, Indexing, Abstracting and Translation should also be provided to them.

(5) As respondents devote a lot of time in searching information they should be exposed to the usefulness and effectiveness of it sources in getting the current and up-to-date information. Furthermore, user education programmes may also be

beneficial in this regard. Library users learn the effective use of digital information sources.

(6) IT based services such as E-mail, video conferencing, teletext etc have to be introduced in the libraries.

(7) E-mail can also be used for answering day-to-day inquiries from users who may not have enough time to visit the library personally. It may help save their time efforts in getting the needed information for effectively supporting their teaching and research activities.

(8) There is need for libraries to take appropriate measures for enhancing the knowledge (latest technology) of their professionals, which may result in better services and understanding information problem and needs.

(9) Internet based services and applications are only used by a limited number of respondents. This is a matter of concern, as presently, electronic information sources and the Internet are considered extremely important tools for effective teaching and research. Therefore, the libraries ought to like to review its electronic information resources, while at the same time embark on an extensive library promotion and user education programmes.

(10) The complexity of information and communication necessitates easier and shortcut techniques rather than a total reliance on the cumbersome conventional information search

techniques in our libraries. It is now time that our users had sufficient access to electronic databases.

(11) Lack of enthusiasm on the part of the users and absence of proper initiative from the part of the librarian have often cited as the two major reasons for the failure of the library services. They can be made more effective by training the staff and providing user education to users.

(12) OPAC facility should have to be provided to them for easy searching of information.

(13) It is suggested to convince users about their "right for information" and for imparting training in the methodology of developing strategy for information access.

(14) At least one refresher course should be organized in a year for library staff.

(15) The librarians need to accept and adopt the total quality management approach to the provision for information services and techniques.

(16) The libraries may encourage and support local conferences, seminars and workshops.

(17) Alerting and referral services should also be given to the users.

(18) Libraries should include non-book and fugitive material in their collection.

(19) Advisory services should also be given to the users.

(20) It is suggested that librarians should take necessary step in changing the traditional image of libraries as book issuing place to pro-effective information centers to modern era.

(21) Considering libraries as one of the first steps in any information technology actively need to review the objectives of their services to ensure that they promptly and effectively respond to the real needs of the actual potential consumers.

(22) It is recommended that librarians should take necessary steps in converting non-users to regular users of the library by giving them additional services and facilities.

If the libraries do not take these necessary steps in changing their face they are not able to meet the challenges provided by the Information Technology. As change is the law of nature everybody and everyone should adapt with this change or be left behind to others.

SUGGESTIONS FOR FUTURE RESEARCH

The present study is concentrated on the information seeking behaviour of teachers of Bundelkhand University and its affiliated colleges. The study was limited to university and college libraries of Bundelkhand region. Keeping in view this limitation of the present study the scope of future research on the similar and related topics is as follows:-

- (1) A more detailed study should be done including inter college and school teachers of the bundelkhand region.
- (2) Future research should be conducted according to the specific fields of teachers means how information seeking behaviour of teachers vary from subject to subject. This type of study gives more detailed coverage to subject requirements.
- (3) A vast research is required to be conducted on the information seeking pattern of Uttar Pradesh teachers.
- (4) Similar research can be done on different status and national level.
- (5) A detailed investigation regarding the services provided by the libraries can be conducted so as to establish the standards of the services to be provided.
- (6) Many similar researches are required to be conducted on this topic following different attributes and characteristics viz. age, qualification, background, psychology etc.

(7) A research is required to be conducted by dividing colleges in different categories commerce like Arts etc.

(8) There is a vast scope of future research in terms of different types of users, different types of user behaviour and comparison of user behaviour.

(9) A detailed research on use of formal and Informal sources should also be conducted in future.

(10) There is a vast scope of future research in terms of new trends in information seeking behaviour.

(11) Many similar researches can be conducted taking different universities and their affiliated colleges individually.

QUESTIONNAIRE

Appendices

Subject – Request to fill-up the questionnaire for my Ph.D. Research work.

Dear Colleague

I am doing my Ph.D. in Library and Information Science at Bundelkhand University, Jhansi. The topic of my Research work is “Information Seeking behaviour of the Teachers of Bundelkhand University Jhansi: An evaluative Study.”

I shall be grateful if you kindly provide detailed Information sought through, I take the privilege to apply the questionnaire here with for the processing of research work.

Thanking you for your cooperation.

Supervisor

Prof. M.T.M. Khan

Head : Deptt of Library
& Information Science
& Dean, Faculty of Arts
Bundelkhand University,
Jhansi

Yours Sincerely,

Arvind Singh Parmar
(Research Scholar)
Library Deptt.
Bundelkhand College
Jhansi

**INFORMATION SEEKING BEHAVIOUR OF THE TEACHERS OF
BUNDELKHAND UNIVERSITY JHANSI: AN EVALUATIVE STUDY
QUESTIONNAIRE
(USER'S SURVEY)**

(1)

(1.1) Name (Mr./Ms./Miss.) _____

(1.2) Name of the Institution _____

(1.3) Designation _____

(1.4) Age _____

(1.5) Sex : Male [] Female []

(1.6) Academic Qualifications _____

(1.7) Field of specialization _____

(1.8) Topic of research, if any _____

(1.9) Languages Known _____
(to be able to read literature)

(1.10) Residential address _____

(1.11) Office address _____

(1.12) Phone No. (R) _____
(O) _____

(2) How often do you visit the library?

(a) Daily	[]
(b) More than one a week	[]
(c) Once a week	[]
(d) Fortnightly	[]
(e) Once a month	[]
(f) When there is need	[]
(g) Rarely	[]

(3) In case, you are not using the library frequently then give the reasons:

(a) Long distance from residence	[]
(b) Long distance from place of work	[]
(c) Shortage of time	[]
(d) Unhelpful attitude of staff	[]
(e) Non-availability of reading material of your interest	[]
(f) Opening hours not suitable	[]
(g) Laziness	[]
(h) If, any other reasons please specify	[]

(4) At what time do you generally visit the library?

- | | | | |
|-----|------------|---|---|
| (a) | 10-12 noon | [|] |
| (b) | 12-2pm | [|] |
| (c) | 2 - 4 pm | [|] |
| (d) | 4—6 pm | [|] |
| (e) | 6 — 8 pm | [|] |

(5) How much time do you spend in the library

- | | | | |
|-----|--------------------|---|---|
| (a) | upto 10 minutes | [|] |
| (b) | 11 — 20 minutes | [|] |
| (c) | 20 — 30 minutes | [|] |
| (d) | 30 — 60 minutes | [|] |
| (e) | More than one hour | [|] |

(6) Why do you visit the library

- | | Very
Frequently | frequently | Sometimes |
|------------------------------------|--------------------|------------|-----------|
| (a) To get books issued | [] | [] | [] |
| (b) To use periodicals | [] | [] | [] |
| (c) To use reference materials | [] | [] | [] |
| (d) To read newspapers/magazines | [] | [] | [] |
| (e) To use audio — visual material | [] | [] | [] |
| (U) To browse periodical / books | [] | [] | [] |

- | Rarely | Never |
|--------|-------|
| [] | [] |
| [] | [] |
| [] | [] |
| [] | [] |
| [] | [] |
| [] | [] |

(7) What types of publications and other sources of information do you use ?
(indicate below)

(1) Documentary sources	Yes	No	Order of priority
(a) Books	[]	[]	_____
(b) Periodicals	[]	[]	_____
(c) Newspaper files	[]	[]	_____
(d) Press cuttings	[]	[]	_____
(e) Doctoral dissertations	[]	[]	_____
(U) Reference books	[]	[]	_____
(g) Documents	[]	[]	_____
(h) Microfilms	[]	[]	_____
(i) Microfiches	[]	[]	_____
(j) Maps	[]	[]	_____
(k) Statistical tables	[]	[]	_____
(l) Proceedings of Conference/Seminars	[]	[]	_____
(in) Library acquisition lists	[]	[]	_____
(n) Survey articles	[]	[]	_____
(o) Official documents	[]	[]	_____

For order of priority

- | | |
|-----------------------|-------------------|
| 1. to a great extent | 2. to some extent |
| 3. to a little extent | 4. not at all. |

(2) For collecting information for your work to what extent would you adopt the following modes:

Mode	Extent			
	1	2	3	4
(a) Own efforts				
(b) Reference librarian / library staff				
(c) Full — time research investigators				
(d) Part — time research investigators				
(e) Students of the department/trainees				
(f) Through friends (family members)				

(8) Mark (✓) the degree of use of the following sources of information for keeping up to date with current developments.

	Used Frequently	Used Sometimes	Used Occasionally	Never Used
(a) Abstracting journals	_____	_____	_____	_____
(b) Indexing journals	_____	_____	_____	_____
(c) Books, monographs, etc.	_____	_____	_____	_____
(d) Handbooks	_____	_____	_____	_____
(e) Research reports	_____	_____	_____	_____
(f) Conference proceedings	_____	_____	_____	_____
(g) Advances in	_____	_____	_____	_____
Progress in -	_____	_____	_____	_____
Annual review of -	_____	_____	_____	_____
(h) Patents	_____	_____	_____	_____
(i) Standards	_____	_____	_____	_____
(j) Pre-prints/reprints	_____	_____	_____	_____
received from authors	_____	_____	_____	_____
(k) Reference found while	_____	_____	_____	_____
reading literature	_____	_____	_____	_____
(l) Attending lectures	_____	_____	_____	_____
(m) Attending Conferences	_____	_____	_____	_____
Seminars, etc.	_____	_____	_____	_____
(n) Conversation with	_____	_____	_____	_____
experts (peers)	_____	_____	_____	_____
(o) Reading list prepared	_____	_____	_____	_____
by your library	_____	_____	_____	_____
(p) If others (p1. specify)	_____	_____	_____	_____

Q.9. How do you feel you are able to keep update with the advances in your field (tick mark)?

- | | | | |
|-----|------------------------|---|---|
| (a) | To a very great extent | [|] |
| (b) | To a great extent | [|] |
| (c) | To some extent | [|] |
| (d) | To a little extent | [|] |
| (e) | Not at all | [|] |

Q.10. Which of the library services listed below do you use ? (Tick mark)

- | | | |
|-------------------------------|---|---|
| (a) Circulation service | [|] |
| (b) Reference service | [|] |
| (c) Indexing service | [|] |
| (d) Abstracting service | [|] |
| (e) Photocopying service | [|] |
| (U) Current awareness service | [|] |

Q.11. Do you ask for assistance from the librarian or other members of the library staff:

- | | | |
|--|---|---|
| (a) to locate books | [|] |
| (b) to search books | [|] |
| (c) to locate current periodicals | [|] |
| (d) to understand use of various reference tools | [|] |
| (e) bibliographical publications | [|] |
| (f) library catalogue | [|] |

Q.12. Do you seek advice about your research project from library staff at the stage of:

- | | |
|------------------------------------|-------|
| (a) Selection of research projects | _____ |
| (b) Preparation of a bibliography | _____ |
| (c) Initiating work on it | _____ |

Q.13 U Please indicate the usefulness of information services provided by your library

- | | Very
Useful | Little
Useful | Not
Useful |
|-------------------------------|----------------|------------------|---------------|
| (a) Circulation service | _____ | _____ | _____ |
| (b) Reference service | _____ | _____ | _____ |
| (c) Indexing service | _____ | _____ | _____ |
| (d) Abstracting service | _____ | _____ | _____ |
| (e) Photocopying service | _____ | _____ | _____ |
| (f) Current awareness service | _____ | _____ | _____ |

Q. 14. Do you use computerised service

Yes []

No []

if yes

(i) Which type of computerised service you are getting ?

Tick Mark

- (a) Literature search within the library
- (b) Literature search through local network
- (c) Literature search through national network
- (d) Literature search through international network

[]
[]
[]
[]

(ii) Are you getting Electronic Mail Service from the library?

Tick Mark

- (a) Frequently
- (b) Sometimes
- (c) Rarely
- (d) Never
- (e) Not available in the library

[]
[]
[]
[]
[]

(iii) If you are subscribing information through online state the advantages in few lines

(iv) Does your library provide the facilities of user education programme on information technology:

Q.15. Do you request / recommend the library to acquire publications of your specific interest ?

Yes []

No []

Q.16. If yes, the response of the library is

- (a) Highly satisfactory
- (b) Satisfactory
- (c) Not satisfactory
- (d) Poor

[]
[]
[]
[]

Q.17. Please indicate the purpose of using periodicals?

- | | | |
|------------------------|---|---|
| (a) Updating knowledge | [|] |
| (b) Research | [|] |
| (c) Teaching work | [|] |
| (d) General awareness | [|] |

If any other please specify

Q.18. Please indicate the methods you adopt to determine the periodical information of your interest

- | | Rank Order |
|--|------------|
| (a) Browsing | [] |
| (b) Through indexing / abstracting periodicals | [] |
| (c) Citations articles | [] |
| (d) Consulting colleagues | [] |
| (e) Consulting library staff | [] |
| (f) Any other, please specify | [] |
-

Q.19. How do you access the journals

- | | Rank Order |
|--|------------|
| (a) Personal copy through subscription | [] |
| (b) Personal copy through membership | [] |
| (c) From colleagues | [] |
| (d) Library of your institution | [] |

Q.20. How many newspapers do you:

- | | |
|--------------------|-----|
| (a) Subscribe to | [] |
| (b) read regularly | [] |
| (c) scan regularly | [] |

Q.21. Do you make reservations for new books?

Yes [] No []

Q.22. Which are the journals you scan regularly (Name them)

- (1) _____
 (2) _____
 (3) _____
 (4) _____
 (5) _____

Q.23. Do you attend conferences / seminars / workshops / lectures related to your subject ?

- (a) Very frequently []
 (b) Frequently []
 (c) Sometimes []
 (d) Rarely []
 (e) Never []

If yes, how useful have these been to you for the following purposes ? Tick (✓) mark below:

	Very Useful	Useful	Not so Useful	Not Useful
(i) Provide new ideas/directions	_____	_____	_____	_____
(ii) Provide information about what work others are doing	_____	_____	_____	_____
(iii) Enable me to tell others about my work or experience	_____	_____	_____	_____
(iv) Enable me to establish new contacts.	_____	_____	_____	_____
(v) Provide information not received from other sources	_____	_____	_____	_____
(vi) Allow discussion	_____	_____	_____	_____
(vii) Any other (p1. specify)	_____	_____	_____	_____

Q.24. What are the difficulties faced by you in obtaining information and keeping up with advances in your field ? Tick (✓) mark

- (a) Lack of space []
 (b) Information scattered in too many sources []
 (c) Information is too vast []
 (d) Do not have access to a library []
 (e) Library used by me lack adequate resources []
 (f) Any other (please specify)

Q.25. Do you find the collection

- | | | |
|-------------------|---|---|
| (a) Excellent | [|] |
| (b) Very adequate | [|] |
| (c) Adequate | [|] |
| (d) Inadequate | [|] |
| (e) Poor | [|] |

Q.26. Do you use the library catalogue:

- | | | |
|----------------|---|---|
| (a) Frequently | [|] |
| (b) Sometimes | [|] |
| (c) Rarely | [|] |
| (d) Never | [|] |

Q.27. Indicate the purpose of using the library

- | | | |
|-------------------------------|---|---|
| (a) Recreation | [|] |
| (b) Academic | [|] |
| (c) Professional | [|] |
| (d) Reference and information | [|] |
| (e) Inspiration | [|] |
| (f) Knowledge | [|] |
| (g) Others | [|] |

Q.28. Which types of books do you generally read?

Fiction [] Non — fiction []

Q.29. How helpful are the librarian and his staff in finding answer to your queries?

Tick Mark

- | | | |
|---------------|---|---|
| (a) Always | [|] |
| (b) Often | [|] |
| (c) Sometimes | [|] |
| (d) Rarely | [|] |
| (e) Never | [|] |

Q.30. Library opening hours are

Tick mark

- | | | |
|-----------------------|---|---|
| (a) Very convenient | [|] |
| (b) Fairly convenient | [|] |
| (c) Convenient | [|] |
| (d) Inconvenient | [|] |
| (e) Very inconvenient | [|] |

Q.31. How do you come to know about a new publication acquired by the library?

- | | | |
|--|---|---|
| (a) Display in the library | [|] |
| (b) List of additions | [|] |
| (c) Library catalogue | [|] |
| (d) Informally through other students/researchers/teachers | [|] |
| (e) Informally through the librarian / library staff | [|] |

Q.32. Please indicate your opinion regarding the use of library collection in general

- | | | |
|--------------------------|---|---|
| (a) Upto 100% is used | [|] |
| (b) Upto 90% is used | [|] |
| (c) Upto 75% is used | [|] |
| (d) Upto 50% is used | [|] |
| (e) Upto 25% is used | [|] |
| (U Less than 25% is used | [|] |

Q.33. Do you feel that your library should provide training programmes to users for effective use of library?

- | | | |
|-----------------------|---|---|
| (a) Very great extent | [|] |
| (b) Great extent | [|] |
| (c) Some extent | [|] |
| (d) Little extent | [|] |
| (e) Not at all | [|] |

If yes, what should be the contents of these programmes _____

Q.34. How many times in the past 12 months did the library succeed in satisfying your demand? _____

Q.35. Would you like to give some suggestions for improvement which might make the literature search and reference service more adequate ? (Please use extra sheet).

QUESTIONNAIRE (LIBRARY SURVEY)

(1) Name and year of establishment of the Institution _____

(2) Name and year of establishment of the library _____

(3) Name, qualification and scale of librarian _____

(4) Please mention the working hours of the library

(a) During working days :	_____ A.M. to _____	_____ P.M.	
(b) During sundays and holidays :	_____ A.M. to _____	_____ P.M.	
(c) During vacations	_____ A.M. to _____	_____ P.M.	

(5) Total numbers of users _____

(a) Researchers/Scientists	_____
(b) Administrative staff	_____
(c) Technical staff	_____
(d) Students	_____
(e) Others	_____

(6) Total budget of the institution

2001 - 2002	_____
2000 - 2001	_____
1999 - 2000	_____
1998 - 1999	_____

(7) Total annual budget of the library

	For books	For journals	
2001 - 2002	_____	_____	_____
2000 - 2001	_____	_____	_____
1999 - 2000	_____	_____	_____
1998 - 1999	_____	_____	_____

(8) Please mention the strength of staff of your library

- (a) Professionals
- (b) Semi — professionals
- (c) Non — professionals

(9) Is library building sufficient as per the requirement?

Yes [] No []

(10) Is library furniture sufficient as per the requirement?

Yes [] No []

(11) Collection

Total No.

(a) Documents	_____
(b) Manuscripts	_____
(c) Books	_____
(d) Bound periodicals	_____
(e) Current periodicals	_____
(f) Audio — visual material	_____
(g) Microform	_____
(h) Computer readable material (CD-ROM)	_____
(i) Other documents	_____
(j) Total collection	_____

(12) Please give subject wise break up of journals received in the library

	No. of 2001-2002	journals 2000-2001	received 1999
(a) Economics	_____	_____	_____
(b) History	_____	_____	_____
(c) Law	_____	_____	_____
(d) Lib and Inf. Sc.	_____	_____	_____
Psychology	_____	_____	_____
Political Science	_____	_____	_____
Sociology	_____	_____	_____
Management	_____	_____	_____
Literature	_____	_____	_____
Science	_____	_____	_____
Others	_____	_____	_____

(13) If there is any decline in number of journals subscribed by your library, please mention the reasons

Reasons	Rank order
(a) Lack of funds	[]
(b) Titles not in much use	[]
(c) Resource sharing arrangements with other libraries	[]
(d) Any other (please specify)	[]

(14) Please tick the services, which are being provided to the users by your library.

(a) Circulation service	[]
(b) Reference service	[]
(c) Indexing service	[]
(d) Abstracting service	[]
(e) Photocopying service	[]
(f) Current awareness service	[]
(g) Translation service	[]
(h) Any other (please specify)	[]

(15) Which are the computerised services provided by your library.

Services	Tick mark
(a) Circulation service	[]
(b) Literature search within the library	[]
(c) Literature search through national networks	[]
(d) Literature search through international networks	[]

(16) For communication of information to users which means of communication do you prefer:

- | | |
|---------------------------|-------|
| (a) Face to face | _____ |
| (b) Telephone | _____ |
| (c) Written communication | _____ |

(17) Mention the use of reading material, giving the order of preference (say 1, 2, 3 etc.)

- | | | |
|---------------------------|---|---|
| (a) Books | [|] |
| (b) Periodicals | [|] |
| (c) Manuscripts | [|] |
| (d) Bibliographies | [|] |
| (e) Statistical tables | [|] |
| (f) Reference source | [|] |
| (g) Newspaper | [|] |
| (h) Thesis | [|] |
| (i) Official publications | [|] |

(18) From the list of recreational literature given below, tick mark (✓) the items users generally read:

- | | | |
|------------------------------|---|---|
| (a) Stories | [|] |
| (b) Historical novels | [|] |
| (c) Social novels | [|] |
| (d) Romantic novels | [|] |
| (e) Detective/mystery novels | [|] |
| (f) Ordinary novels | [|] |
| (g) Science fiction | [|] |
| (h) Drama | [|] |
| (i) Poetry | [|] |
| (j) Essays | [|] |

(19) Does your library subscribe full - text CD - ROM journals?

(20) If yes, how do you rate the usage of the full — text CD ROM journals?

- | | | |
|----------------------|---|---|
| (a) Very heavy | [|] |
| (b) Heavy | [|] |
| (c) Satisfactory | [|] |
| (d) Not satisfactory | [|] |

(21) Does the library provide online search facility?

Yes [] No []

If yes, please list the names of database vendors accessible for online search service:

- (a) _____
- (b) _____
- (c) _____
- (d) _____

(22) Please mention the names of softwares being used by your library for different purposes:

Purpose	Keep of the software
(a) House keeping jobs	_____
(b) Reader's services	_____
(c) Management support activities	_____
(d) Networking	_____
(e) Any other (Please specify)	_____

(23) If computer is being used for reader's services, indicate as to what kinds of computerised services are being provided?

(a) CAS	[]
(b) SDI	[]
(c) Database searches	_____
(d) Bibliographical services	_____
(e) Union catalogue access	_____
(f) Articles delivery service	_____
(g) Any other (Please specify)	_____

(24) Is your library participating in any network?

Yes [] No []

(25) What kind of networking structure do you have:

- (a) LAN
- (b) WAN

(26) Which of the following search service is under greater use:

- (a) CD ROM search service _____
- (b) On — line search service _____

(27) In the digital libraries context, what effect you think, it would have on the following functions of a library?

	Improve	Don't improve	No effect
(a) Library services	_____	_____	_____
(b) User satisfaction	_____	_____	_____
(c) Meeting users demand	_____	_____	_____
(d) Library material usage	_____	_____	_____
(e) Library services	_____	_____	_____
(f) Library image	_____	_____	_____

(28) Does the library provide Inter — library loan facility of journals to the user?

Yes [] No []

(29) Does the library organise regular display of current journals.

Yes [] No []

(30) How frequently journals are resolved?

- (a) Once a day []
 (b) Twice a day []
 (c) Whenever need arises []
 (d) Any other (Pl. specify) _____

(31) Is your library involved in creation of databases

Yes [] No []

(32) Are users allowed to carry out CD — ROM searches themselves?

Yes [] No []

(33) Please mention the charges for CD — ROM search per connect hour, if any, to be paid by different categories of users:

Categories of users	Charges to be accessed directly by users	Paid when Through Library
(a) UG / PG students	_____	_____
(b) Research scholars	_____	_____
(c) Faculty members	_____	_____
(d) Outsiders	_____	_____
(e) Any other (Please specify)	_____	_____

(34) Which on-line search service and CD — ROM search service is used more than other specify _____ please

(35) Does your library possess the following for information dissemination?

- | | | | | |
|--------------------------|-----|---------|----|---------|
| (a) TELEX | YES | [] | NO | [] |
| (b) TELEPHONE | YES | [] | NO | [] |
| (c) FAX | YES | [] | NO | [] |
| (d) E - MAIL | YES | [] | NO | [] |
| (e) INTERNET / HOME PAGE | YES | [] | NO | [] |

(36) Does the library provide Electronic Mail Service to it's users?

YES [] NO []

If yes, is it on payment []
or free of cost []

I

(37) How many persons in your staff are trained in computer application

(38) Does the library subscribe the journals in any other form then printed form?

YES [] NO []

If yes, please mention the no. of journals being subscribed formwise.

- (a) Microfilm _____
(b) Micro fiche _____
(c) Computerised _____
(d) Any other _____

According to your opinion other forms are more useful for users?

YES [] NO []

(39) Does your library provide reprographic service.

YES [] NO []

If yes, please tick.

- (a) Micrographic (Microfilm, Microfiche etc.)
- (b) Audio — visual (Sound film, Video film etc.)
- (c) Photographic (Photographs, Colour slides etc.)
- (d) Photocopying (Document delivery)

(40) Does your library provide facilities of user education programme on which areas of information technology:

- (a) Use of computer
- (b) Fax
- (c) Pager
- (d) E-mail
- (e) Internet
- (f) On line searching
- (g) CD — ROM searching
- (h) Others

(41) When users are seeking information which sources of information do you generally try, mark as I, II, III etc.

Indicating order of priority.

- (a) Discussion with colleagues
- (b) Consult knowledgeable persons, peers in the field
- (c) Consult supervisor
- (d) Discussion with librarian and library staff of his institution
- (e) Discussion with librarian and staff of other libraries
- (f) Review articles
- (g) Abstracting journals
- (h) Indexing journals
- (i) Library catalogue
- (k) Other sources (Please specify)

(42) Which scheme of classification and edition of the same do you use at present?
Are you satisfied with the results _____

(43) Which catalogue code and edition of the same do you use? _____

(44) In your work situation, do you think that there are activities which could provide m for discussion on new ideas?

Yes [] No []

(45) How do you receive information about the library _____

(46) How do you rate the utility of the service by the users?

- | | |
|----------------------|-----|
| (a) Excellent | [] |
| (b) Good | [] |
| (c) Fair | [] |
| (d) Satisfactory | [] |
| (e) Not satisfactory | [] |

(47) Please write the details of the hardware / equipments / softwares —

(i) Hardware _____

(ii) Software _____

(iii) Others _____

(48) For which of the following purposes users primarily use the library

- | | |
|------------------------|-----|
| (a) Teaching | [] |
| (b) Research | [] |
| (c) Scholarly writings | [] |
| (d) Self knowledge | [] |
| (e) Prescribed course | [] |
| (f) Recreation | [] |

(49) Are there significant gaps in books / periodicals collection.

Yes [] No []

(50) Does the library has any perspective plan for its development?

Yes [] No []

If yes, please describe in brief _____

(51) Would you like to give some suggestions for improvement, which might make library and information service more adequate

BIBLIOGRAPHY

BIBLIOGRAPHY

1. AGARWAL, S.P. User education for information seeking .
Eureka Versus Despair. Library Herald V. 22 No, 4 January
1984 PP. 176 – 182.
2. AGARWAL (SP) and M LAL. Information needs of social
scientists. International Library Review. 19; 1987; 287 –
299.
3. AGARWAL (Anil) and CHAKRABORTY (HK).
Information need and use pattern of Earth Science scholars of
Banaras Hindu University. Indian Journal of Information,
Library & Society. 8 (3 – 4); July – December 1995; 219 –
227.
4. ADEDIBU (LO) and ADIO (Gboyega). Information needs
and Information Seeking patterns of medical students at
Lautech, Ogbomoso. Aslib proceedings 49(9); October 1997;
238 – 242.
5. BINWAL (JC), CHANDEL (AS) and SARAF (VEENA), Ed.
Social Science Information : Problems and prospects 1990;
New Delhi; Vikas Publishing House.
6. BICHTLER (Julie) and WARD (Dederick). Information
Seeking Behaviour of Geologists. Special Libraries 80;
1989; 169 – 178.

7. BHASKARA RAO (P). Information network and resource sharing 1998; New Delhi; Reliance Publishing House.
8. BHATT, B.D. : Educational development in India. New Delhi : Arya Book, 1997.
9. BAWDEN (David) and ROBINSON (Kay). Information behaviour in nursing specialties. A case study of midwifery. Journal of Documentation. 23(6); 1997; 407 – 421.
10. BANERJEE, S.R. : The development of Libraries in India. IASLIC Bullitin, 1960.
11. BOSE (H). Information science : Principles and practice sterling publishers (P) Ltd., new Delhi, 1986.
12. CHAND, Kuldip "Information Marketing" Delhi : Batra Book Service, 1996.
13. COBBLEDICK (S). The Information Seeking Behaviour of artists : Exploratory interviews Library Quarterly. 66(4); October 1996; 343 – 372.
14. CHEW (Fiona). The relationship of information needs to issue relevance and media use. Journalism Quarterly. 71(3); Autumn 1994; 676 – 688.
15. CHENG (GY) and LAM (LMC). Information Seeking Behaviour of health professionals in Hong Kong : A survey

- of 37 hospitals. *Bulletin of the Medical Library Association* 84(1); January 1996; 32 – 40.
16. CHEN (Ching – Chih) : How do scientists meet their information needs? *Special libraries*. 65(7); July 1974; 272 – 279.
 17. CAMERON (Pauline) etc. Information needs of hospital patients : A survey of satisfaction levels in a large city hospital. *Journal of Documentation* : 56(1); March 1994; 10 – 23.
 18. CURTIS (KL), WELLER (AC) and HURD (JM). Information Seeking Behaviour of Health Science Faculty : The impact of New Information Technology. *Bulletin of the Medical Library Association*. 85(4); October 1997; 402 -- 410.
 19. DHAWAN (SM) and SACHDEVA (DL). Users approach to information in Physical Sciences : An Overview. *ILA Bulletin* : 22 (3-4); October 1986 – March 1987; 103 – 111.
 20. DASHPANDE, K.S. : *University Library System in India*, New Delhi, Sterling, 1992.
 21. DEVI (AS) and LAHIRI (R). Information Seeking Behaviour of agricultural extension agencies : A case study *International Information Communication and Education* : 16 (2); September 1997; 196 – 203.

22. DALAI (BK), RAMESH (DB) and SAHU (JR). Library use : An analytical study. *Annals of Library science and Documentation* : 44(2); June 1997; 73 – 77
23. ELLIS (David) and MAUGAN (Marete). Modeling the Information Seeking patterns of engineers and research scientists in an industrial environment. *Journal of Documentation*. 153(4); September 1997; 384 – 403.
24. ELLIS (David), COX (Deborah) and HALL (Katherine). A comparison of the information seeking patterns of researchers in the physical sciences and social sciences. *Journal of Documentation* : 49(4); December 1993; 356 – 369.
25. FORD (N). Relating information needs to learner characteristics in higher education. *Journal of documentation*. 36(2); June 1980; 99 – 114.
26. FOX, PETER : Third International Conference on library education. Houghboroug University of technology, INFUSEP publication, 1983; PP. 174.
27. FOLSTER (MB). Information Seeking Patterns : Social Sciences. *Reference Librarian*; 49/50; 1995; 83 – 93.
28. FLOWRES (BH). Survey of Informatin needs of Physicists and Chemists. *Journal of Documentation*. 21(2); June 1965; 83 – 112.

29. FEATHER (John) and STARGES (Paul) ed. *International Encyclopaedia of Information and Library science* London, Routledge; 1997.
30. GARG (Kailash Chandra) and ASHOK KUMAR. Information gathering habits of R&D Scientists : A survey. *Annals of Library Science and Documentation*. 31 (1-2); 1984; 63 – 73.
31. GOPINATH, M.A. "Curriculum of Library and Information Service Courses and Marketing of Information Service" in *Marketing of Library and Information Services in India : Papers presented at the 13th National. Seminar of IASLIC Calcutta : IASLIC, December 20 – 30, 1988; PP. 125 – 129.*
32. GHOSH, G.B. & Banerjee, B.N. : *Trends of Information Service in India*, Calcutta, National Library, 1978.
33. GUHA (B). *Information Seeking and Communication Behaviour of Indian Scientists NISSAT Study. NISSAT newsletters*. 1; 1993; 18 – 22.
34. GRUPPEN (Larry D). *Physician Information Seeking : Improving relevance through research. Bulletin of Medical Library Association*. 78(2); April 1990; 165 – 172.
35. GOLLOP (CJ). *Health Information Seeking Behaviour and old African American Women. Bulletin of the Medical Library Association*. 85(2); April 1997; 141 – 146.

36. GOLDBERG (Aleksandra L). Information needs of Social Scientists and ways of meeting them. *International Social Science Journal*. 23; 1971; 273 – 284.
37. GIRIJA KUMAR : Defining the concept of information need. In Binwal, JC and others, New Delhi, Vikas publishing house; 254.
38. HANSRAJ : Social survey and research methodology, Surjeet Publication, 1979.
39. HART (RL). Information gathering among the faculty of a comprehensive college : Formality and globality. *Journal of Academic Librarianship*. 23(1); January 1997; 21 – 27.
40. HERBERT (Menzil) "The information needs of current scientific research. *The Library Quarterly*, V. 34, 1964, p.4-19.
41. INDIA UNIVERSITY GRANT COMMISSION : Annual Report 1991 – 92. New Delhi, UGC 1993.
42. IYENGAR (TKS) and RAGHAVENDRA RAO (GS). Users approach to information. A case study in the field of Physical Science. *ILA Bulletin*. 22 (3-4); October 1986 – March 1987; 95 – 102.
43. IZAH (M). Information needs and seeking Behaviour of extension specialists and technical officers of National Agricultural Extension and Research Liaison Services.

Ahmadu Bello University, Zaria. Library Focus. 13 & 14; 1995-96; 50 – 66.

44. Ibid Vol 2,73.
45. JAIN (SP) and MEHLA (RD). Information needs for futuristic study. IASLIC Bulletin. 27(3); 1982; 115 – 119
46. KHANNA (JK). The librarians compendium : Subjects, sources and research methodology. 1997; New Delhi; Beacon Books.
47. KHAN (Khaisar Muneebulla) and SIMONS (Susan Elizabeth). Use of library resources by lady pot – graduate students of Manglore University library. A study – Indian Journal of Information Library & Society. 8 (3 – 4), July – December 1995; 288 – 296.
48. KAWATRA (PS). Educational Information : Research Scholars approach. ILA Bulletin. 22(3 – 4); October 1986 – March 1987; 148 – 152.
49. KARISIDDDAPPA (CR), SANGAM (SL) and MAHESHWARAPA (BS). Information use pattern of Indian Historians. IASLIC Bulletin. 34(2); 1989; 47 – 53.
50. KOCHAR, Ved B and Sudarshan Kumari “Informatin Technology and the Market for Information Services. In Kappor Information Services in India” : Papers presented at

- the 13th national seminary of IASLIC, Calcutta : IASLIC, 1988. PP. 27 - 32.
51. KUMBAR, Mand Birader, B.S. : User education in University libraries Proceedings of the 5th National Convention for Automation of Libraries in education and research (CALIBER - 98), Bhubaneswar, 4 - 5 March 1998 ed. By M. Mahapatra et al Ahmedabad, India, 1998; P. 31 - 34.
 52. KAULA, P.N. : Information Technology : Legal Policy and Management Issues. University News October 1994; P. 8 - 12.
 53. KURUPPU (DC). Information needs and Information Seeking Behaviour of users in organizations. Information studies. 5 (1); January 1999; 53 - 66.
 54. KUHLETHAU (Carol C). A principle of uncertainty for information seeking. Journal of Documentation. 49(4); December 1993; 339 - 355.
 55. KRISHNA REDDY (SM) and KARISIDDAPPA (CR). Information Seeking Behaviour of the professionals in the field of disabilities with special reference to mental handicap in India. Annals of Library Science and Documentation. 44(2); June 1997; 54 - 64.

56. KORAH (Accamma C) and DEVARAJAN (G). Information needs and use patterns of Rubber scientists. IASLIC Bulletin. 36(3); September 1991; 89 – 94.
57. LUNDEEN (GW). Information needs of rural health care practitioners in Hawaii. Bulletin of Medical Library Association. 82(2); April 1994, 197 – 203.
58. LIU (M) and REDFERN (B). Information Seeking Behaviour of multicultural students. A case study at San Jose State University. College and Research Libraries. 58(4); July 1994; 348 – 354.
59. LECKIE (GJ), PETTIGREW (KE) and SYLVAIN (C). Modeling of Information Seeking of professionals : A general model derived from research on engineers, health care professionals, and lawyers library quarterly. 66(2); April 1996; 161 – 193.
60. LALITHA (M). Information Seeking Behaviour of medical and engineering personnel : A comparative study with special reference to their library use. Library Science with a slant to Documentation. 32(2); June 1995; 65 – 74.
61. LOHIA, J.S. "Relevance of Marketing of LIS in Electronic Information Era. In Sardana J.L. ed. Libraries and Information Services in the Electronic Information Era. ILA Seminar

Papers of All India Library Conference, held at Hyderabad,
25 – 28 February 1999, PP. 131 – 137.

62. LIBRARY ASSOCIATION WORKING PARTY : The impact of new technology on libraries and information centers, London : L.A. 1982; P. 36.
63. MAHESWARAPA (BS) and SURYA RAO (R). Information use pattern of American, British and Indian food Scientists as indicated by citations in journals : A comparative study. Library Herald. 28(1 – 2); April – September 1989; 32 – 42.
64. MUSIB (SK). Information Seeking Patterns in the rural areas of West Bengal, India : A survey report on cottage industries. IASLIC Bulletin. 36(4); 1991; 177 – 186.
65. MURTHY, S.S. Bibliographic Database and Networks. New Delhi : Tata McGraw Hill, 1990.
66. NICHOLAS (Dave) and COLGRAVE (Kate). Councilors and Information : A study of information needs and information provision. Aslib proceedings. 48(2); February 1996; 37 – 46.
67. NEELAMEGHAN (A). Information needs and information sources of small enterprises. A synoptic view. Library Science with a slant to Documentation. 14(3 - 4); September – December 1977; 136 – 139.

68. NAGAR, Murari Lal : *Foundation in Library movement in India*. New Delhi : Sterling, 1953.
69. NAKHIMOFF, T. : Information and user education ACOPOL exchange of experience seminar. Audiovisual librarian V.12 No.3; August, 1986; PP. 152 – 160
70. NEELAMEGHAN, A. : Information and Communication Technologies (ICTS) and Developing Countries IASLIC BULLETIN 41(1), MARCH 1996. P. 9 – 24.
71. OCHOLLA (DN). Information Seeking Behaviour by Academics : A preliminary study. International Informtion and Library review. 28(4); December 1996; 345 – 358.
72. OPPENNEM, Charles : ed : CD-ROM : Fundamental to applications, London : Butterworth, 1988.
73. Oxford English Dictionary Vol 14 Oxford : Clarendon, 1989, 876.
74. PRASAD (HN) and TRIPATHI (Manorama). Information Seeking Behaviour of Physical Scientists and Social Scientists : A report Annals of Library Science and Documentation. 45(2); June 1998; 41 – 48.
75. PELZER (NL), WIESE (WH) and LEYSEN (JM). Library use and Information Seeking Behaviour of veterinary medical students revisited in the electronic environment. Bulletin of

the Medical Library Association. 86(3); July 1998; 346 – 355.

76. PANGANNAYA (NB) and RAMAKRISHA RAO (N). Information gathering habits of R&D personnel of selected large scale industries. International Information Communication and Education. 12(1); March 1993; 26 – 72.
77. PRASAD (HN) Information needs and users, Varanasi, Indian Bibliographic Center; 1992.
78. PRASHER (RG) Information and its communication New Delhi, Medallion, 1991.
79. ROBERTSON (Andrew). Behaviour patterns of scientists and engineers in information seeking for problem solving Aslib proceedings 26(10); October 1974; 383 – 395.
80. REDDY (S Hari Krishna) and KARISIDDAPPA (CR). Information Seeking Behaviour of the professionals in the field of disabilities with special reference to mental handicap in India. Annals of Library Science and Documentation. 44(1); 1997; 54 – 64.
81. REDDY (G Gopal) and REDDY (V Pulla). Users Survey of Kendriya Sanskrit Vidyapeeth Library : A study – Indian Journal of Information Library & Society. 2 (3 – 4); September – December 1989, 244 – 258.

82. RAY (Kathlin L) and LANG (MARY S). Analyzing Search Styles of Patrons and Staff : A replicative study of Turo University libraries. LRTS. 41(3); 1997; 219 – 235.
83. RANGANATHAN (SR). University Libraries. Then and now. Library Herald. 6(2-3); July & October 1963; 61 – 69.
84. RANA (MS). Information use pattern of Wildlife managers. Library Herald. 30(2 – 4); July 1991 – January 1992; 164 – 165.
85. RAMESH KUMAR. Information gathering habits of Health Scientists and Suggestions for National health Information System. Ph.D. Thesis. 1995, University of Delhi, Delhi.
86. RAVI, N. ed. : The Hindu speaks on Information Technology, Madras : Kasturi, 1993.
87. ROWLEAY, J.E. : Computer for Libraries. 2nd (Ed). London : Clive Bingley, 1980.
88. ROBERTS (N) Draft definitions : Information and library needs, demands and uses : A comment. Aslib proceedings 27,1975,308-13.
89. SANGAMESWARAN (SV) and GOPINATH (MV). User studies in NICFOS : A review. ILA Bulletin. 22 (3-4); October 1986 – March 1987; 142 – 147.

90. SANGHAMESWARAN (SV) and GOPINATH (MV). Food Science and technology information services (FOSTIS) : Users assessment of CFTRI Documentation services. Library Science with a slant to Documentation. 14(3 - 4), September - December 1977; 129 - 135.
91. STUDER, W.J. : Library user education and the development of online catalogues. Journal of Educational Media and Library Science V. 23 No. 3 Spring 1986. PP. 217 - 225.
92. SCHMEDAIR, D. : Information Technology and user education management. In Information Technology & Library Management, 13th International Essen Symposium, 22 - 25 October, 1990 ed by Ahmed H. Helal and Joachim W. Weiss Essen, Universitat Sbeblocochek Essen, 1991; P. 211 - 223.
93. SIGEL, Efron, Ed. : Videotext : The coming revolution in Home/Office, Information retrieval, New York; Harmony Books, 1980.
94. SETHI (AR). Information Seeking Behaviour of Social Scientists : An Indian Conspectus. 1990; New Delhi; Hindustan Publishing Corporation.
95. SETHI (AR). Information Seeking Behaviour of area specialists. ILA Bulletin. 22(3-4); October 1986 - March 1987; 153 - 155.

96. SCANMELL (Alison). The information needs of teleworkers in the financial service sector. *Management information* 5 (3); May 1996; 38 – 40.
97. SATISH (NG) and INAMDAR (NB). Information use pattern of rural development scientists. A case study. *I L A Bulletin*. 22(3 – 4); October 1986 – March 1987; 156 – 164.
98. SALSİKALA (C). Information Seeking Behaviour of managers in industry. *IASLIC bulletin* 39(1); 1994; 27 – 31.
99. SARDANA (J L) and SEHGAL (RL). Statistical methods for librarians. 1982; Ess Ess Publication, New Delhi.
100. SANJEEV KUMAR and MISHRA (Sanjay). Use of National Institute of Fashion Technology Library. A Survey. *ILA Bulletin*. 28(3-4); October – March 1993; 117 – 123.
101. SRIDHAR (MS). Information Seeking Behaviour of the Indian Space technologists. *Library Science with a slant to Documentation*. 26(2); June 1989; 127 – 166.
102. SINGH (SP). Survey of Indian Institute of Technology Library, Madras. *Journal of Library and Information Science* 20(1 – 2); June – December 1995; 1 – 33.
103. SINGH (SN). Assessing : Information needs and uses. A state of the art report. *Herald of Library Science* : 18(1 – 2); January – April 1979; 38 – 45.

104. SHELSTAD (KR) and CLEVANGER (F W). Information retrieval patterns and needs among practicing general surgeons. A statewide experience. Bulletin of the Medical Library Association. 84(4); October 1996, 490 – 497
105. SURI (BK). Social Science Information Herald of Library Science. 15(2); April 1976; 106 – 110.
106. Sharma (SK) "Consumer's Effectively in changing Information Technological scenario at the libraries of the state universities in U.P." 2001.
107. SHERA (JH) Foundations of education for Librarianship. 1972; Newyork, Willey - Becker and Hyes.
108. SOOD (SP) ed. Documentation and information science (In Hindi), Jaipur, Raj publishing House, 1994.
109. TAMBESWADE (VG). Sources of information university News. 35(50); December 15, 1997; 8 – 11.
110. VERHOEVEN (Anita AH), BOERMA (Edgard J) and JONG) (Betty Meybood etc.). Use of information sources by family physicians : A literature Survey : Bulletin of Medical Library Association. 88(1); January 1995; 86 – 90.
111. VISHWANATHAN (CG) Elements of information science New Delhi, Today and Tomorrows, 1976.

112. WILDMUTH (Barbara H), et. Al. Inforamtion Seeking Behaviour of Medical Students. A classification of questions asked of librarians and physicians. Bulletin of Medical Library Association. 82(3); July 1994; 295 – 304.
113. WIBERLEY (Stephen E) and JONES (William G). Patterns of Information Seeking in the Humanities. College and Research Libraries. 50; November 1989; 638 – 645.
114. WILSON (TD). Models in information behaviour research. Journal of Documentation. 55(3); 1999; 249 – 270.
115. WOOD (DN). Discovering the user and his needs. Aslib Proceedings. 21(7); July 1969; 262 – 270.